
UNIT 1 UNDERSTANDING TEACHING AND LEARNING

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1.1 INTRODUCTION

It is a well known fact that a child acquires a lot of knowledge and learns a lot of skills, attitudes, manners from his/her mother, father, brother, sister, and grandparents. All of them teach the child basic knowledge, skills and attitudes required of living a good life. In this process the role of the mother is very crucial and prominent in shaping the values of the child. Therefore, it is said, mother is

the first teacher of the child. When the child moves from family and neighborhood to a formal school, he/she is exposed to a different kind of learning environments. In the school, he/she learns from teachers, peers and others. He/she is taught by the teacher with new learning experiences in different subjects like mathematics, language, social sciences, sciences, etc. Apart from gaining learning experiences in subject areas, she/he acquires new learning experiences through sports, picnics, group works, project works etc. Therefore, teaching and learning are closely interrelated to each other. Although you have some understanding of these concepts, in this unit, we will discuss the pedagogic understanding of these concepts, relationship between them and the different ways through which the students learn the subjects at elementary level.

1.2 OBJECTIVES

After going through this Unit, you will be able to:

- define teaching;
- spell out the various characteristics of teaching;
- explain teaching as facilitation of learning;
- highlight the relationship of teaching with learning and learner;
- point out the relationship between learner and learning;
- define child-centered approach to teaching-learning;
- spell out the characteristics of child centered approach to teaching-learning;
- explain how to integrate children's voices and experiences in the teaching-learning process;
- suggest ways to bring in active participation of learners in classroom activities;
- explain the concept of learning;
- describe the nature of learning;
- explain learning as development of knowledge, skills and attitudes; and
- enlist and explain the different ways through which learners learn.

1.3 CONCEPT AND NATURE OF TEACHING

Teaching is a familiar term to all of us. Although the term is generally associated with the schooling process, but one can find the act of teaching in many places. In the family, parents teach children many things about good habits right from the childhood. In the neighbourhood, elders teach children many things related to community living. In schools, teachers teach students not only different subjects, but also many things which are essential to be good citizens and lead a productive social life. Teaching taking place in family and neighbourhood may not be organized, whereas teaching provided in schools is well organized with pre-determined objectives. As a teacher, you may be engaged in organizing many activities which take place within and outside the classroom. Inside the class you may be delivering lectures, giving demonstrations, explaining concepts, conducting experiments, narrating stories, reciting poems, conducting role-plays, etc. Similarly, outside the classroom, you may be taking students for fieldworks, organizing sports activities, organizing exhibitions, etc. Do all these activities

being performed by you constitute teaching? What does then teaching mean pedagogically? What is its nature? Answers to these questions are being discussed in the coming sub-sections.

1.3.1 Concept of Teaching

As a teacher, you may teach, train or instruct others. All these refer to the processes meant for bringing about changes in the cognitive structure (structure of knowledge in one's mind) in those who are being taught. However, they differ significantly in their meanings. Training involves preparing someone to do a job. It describes learning that takes many years to complete. Training involves a relatively systematic attempt to transfer knowledge and skills from one who knows to some one who does not know. Instruction, on the other hand, although often used synonymously with teaching, it has more to do with the development of skills rather than education in a broader sense. Unlike training and instruction, teaching refers to the actions of someone who is trying to assist others to reach their fullest potential in all aspects of development. It involves physical, mental, emotional, social, moral, and spiritual development of learners. Teaching is a process of attempting to promote changes in the learners. As noted, although training, instruction and teaching differ in their meanings, the central process that runs through all of them is learning.

As noted above, teaching refers to the actions of someone who is trying to assist others to reach their fullest potential in all aspects of development. Teaching would result when the teacher indulges in any activity with the intention that pupils would learn something as a consequence of it. For example, when a teacher explains to her/his pupils a scientific principle, a procedure for solving an arithmetic problem or a technique to memorise a chemical formula, learning occurs through the process of teaching. she/he anticipates that her/his pupils would learn the principle, procedure or technique, and teaching would occur. Teaching also would result when the teacher prescribes tasks such as reading a passage, writing of a composition for pupils to engage in for the purpose of learning. Thus, in either case, be it directly through the face – to – face interaction or indirectly from the books, films or instructional programmes, teaching can occur. However, when we think of teaching, we generally have in mind the teacher-student interaction in the classroom.

As compared to teaching, instruction is a much broader concept. Instruction subsumes both teaching and classroom management. They are so well integrated that it is difficult to differentiate one from the other. A question that the teacher puts across the class, for example, is an act of teaching, while restricting its answer to a single student and avoiding confusion in the class is part of management. Similarly, recognizing pupil attention behaviour, gaining maximum pupil involvement, managing deviant behaviour, recognizing pupil needs, displaying enthusiasm, etc that occur along with the teaching, are all part of classroom management. Quality instruction involves efficient and effective use of both management techniques and teaching methods. So teaching and classroom management go so hand – in – hand, that it is difficult to separate one from the other. By now, we have attempted to describe the concept of teaching. Now let us look at the nature of teaching.

1.3.2 Nature of Teaching

As we have already seen, teaching is a process that involves a series of actions leading to certain outcomes. Teaching, like any other concept, involves certain characteristics. We highlight some of the important characteristics of teaching in the forthcoming sub-sections:

i) Teaching is both Science and Art

Teaching, as a process, has characteristics of both art and science. It is a practical art and not a fine art aimed at creating beauty for its own sake. It requires improvisation, spontaneity, handling of hosts of considerations of form, style, pace, rhythm, and appropriateness that even computers fall behind. Effective teachers have natural instincts for teaching. It is these instincts that make their teaching unique. Good teaching, apart from being a creative art, is also a science that requires a good understanding of principles of teaching and a deep knowledge of the subject matter. It also offers specific methods and skills that are attainable. As a result, good teachers are able to transform knowledge into learning activities that motivate students to learn.

ii) Teaching is Complex

Teaching uses all sorts of techniques, methods, and media. Teaching makes use of various techniques or skills such as questioning, probing, exemplifying, etc. It also makes use of various methods or models of teaching depending upon the nature of the content being taught, objectives to be accomplished, and readiness of the learners to learn. Teaching also makes use of such media as audio-visual media, human interaction media, print media, realia, electronic media, etc. Success in teaching, to a great extent, depends upon selection and use of appropriate techniques, methods, and media.

iii) Teaching Visualizes Change in Behavior

As teachers when we teach, we have some expectations as to what changes would happen in the behaviour of the learners. These changes can be in the cognitive (knowledge), psycho-motor (skills), and affective (attitudes) values of the learners. The changes that take place in the behaviour of learners as a result of learning should be tentatively permanent. The changes that occur in learners need not be performative but be potential ability of the learners.

iv) Teaching can be Direct or Indirect

While teaching, teachers may resort to either direct or indirect ways of teaching. As the teachers use such methods as lecture, demonstration, etc and engages students in face – to – face interaction, they are teaching them directly. Conversely, when they use active methods like role-play, project, assignment, inquiry or other such activities, they are teaching them indirectly. As teachers, we ought to know that teaching them indirectly is a better way of teaching as compared to teaching them directly. In indirect ways of teaching, students are at the centre. As a result, they are actively involved in the process of learning. This gives them chances for better understanding which leads to greater retention.

v) Teaching can be Vertical or Horizontal

Depending on the objectives of teaching, teachers may lead students deep into the topic. They not only help students know and understand the topic but teach them higher order thinking skills like analysis, synthesis, evaluation and creating. This type of teaching is known as vertical teaching. Conversely, if the teachers teach one topic and then move on to more and more topics, they are resorting to horizontal teaching. In that case, their teaching covers more areas spreading over several topics instead of going deeper into one topic.

vi) Teaching may be Planned or Unplanned

Traditionally, teachers plan for instruction before they go to the classroom for teaching. In the beginning of the academic year, they resort to yearly planning in which different units in the textbook are distributed judiciously throughout the year. Thereafter, they take up each unit, subject it to content analysis, task analysis, decide the techniques and methods to be used for teaching. Then they decide the ways of evaluation. However, with the coming of active learning methods, no strict planning is possible as one is not clear in advance what could be the possible way of organizing teaching learning activities.

By now, we have discussed what teaching is and what its main characteristics are. This awareness about teaching and its nature would help us in a big way in handling teaching in a better manner. Now you can assess yourself as to what you have learned.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

1) Define each of the following concepts in a sentence

a) Teaching

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b) Training

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c) Instruction

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- 2) Explain how teacher centred teaching is different from learner centred teaching?

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- 3) Differentiate between vertical and horizontal teaching.

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- 4) In which sense is teaching both art and science?

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1.3.3 Teaching as Facilitation of Learning

Teaching is traditionally seen as an attempt to bring about desirable changes in the behaviour of the learners or their cognitive structure. To accomplish this, teachers analyze and organize the content they are to teach, decide the objectives for teaching it, select the appropriate methods and even the techniques for evaluation. Everything pertaining to teaching is done by teachers and learners have practically no role to play. They are simply to listen, understand and retain knowledge and skills that teachers focus while teaching. In this type of direct teaching using such methods as lecture or demonstration, students are mostly passive, as there are less changes for students for focusing, understanding and retention.

Since 1980's, with the advent of constructivist approach to learning, a new way of looking has come to prevail. The constructivists view learning as personal and hold that every individual is responsible for his or her own learning. In this perspective, individuals learn as a result of doing activities or undergoing experiences. In this process, the incoming new knowledge and the prior knowledge of the learner pertaining to the topic get integrated and as a result, knowledge and skills are constructed. Teacher's role is only to guide or facilitate the act of learning of students.

In learner-centred method of teachings, be they role play, discussion, cooperative learning, inquiry or discovery, teachers do not stand in front of the class unlike teaching students through expository methods of lecture and demonstration. They enable students to learn. As students at the elementary level are not that mature, they need a lot of assistance in the progress of learning. They need assistance of teachers, at every step of their learning. If students are to get best results, activities and experiences should be accompanied by systematic analysis and reflection. So, teachers' assistance is inevitable at every step of their learning.

By way of facilitation, teachers are expected to perform a number of tasks at the pre-instructional, during-instructional and post-instructional stages. As experiential learning involves learners to learn on their own, teachers have to gather in advance all the required resources such as materials, texts, worksheets, etc so that students can learn on their own without any interruption. Teachers also have to select appropriate contents, activities or issues in consultation with students looking into the relevance and interests of students. In addition, they have to decide in advance the objectives of doing the activities or undergoing the experiences and the procedure to be followed, and the like. In case the method chosen for the purpose is something like discussion or cooperative learning, teachers have to think in advance about dividing the class into groups. They have to decide whether the grouping should be homogeneous or heterogeneous. Teachers also have to provide, during pre-instructional tasks, instruction as to what students are expected to do while working in learning teams. They also have to fix the time limit for completion of particular activity, fix dates and time for discussion or presentation. They also have to decide the evaluation procedures to be followed after each activity.

During the process of teaching-learning, teachers have to guide them through various steps in the method being used. If the method chosen is discussion, for example, teachers have to convey the objectives of holding the discussion, get the student ready to participate in the discussion and focus the discussion. As the discussion progresses, teachers have to monitor, enforce the ground rules, keep records of the points raised and even add their ideas at appropriate places. As the discussion comes to an end, they have to end it and debrief it in which they have to get the students look at the discussion analytically.

Teachers have also to do some post instructional tasks. Once the activity is over, teachers have to encourage students to analytically go through it and reflect over it. They have to help students find out what went right and what went wrong, and what their strengths and limitations are, etc. and also have to give required feedback for improvement.

In short, teaching is not seen as marking the empty slate or filling the vessels with knowledge and skills. Teachers' main role is not to expose learners to knowledge and skills through lectures or demonstrations, but to facilitate or guide the learners in the process of learning.

1.3.4 Relationship of Teaching with Learning and Learner

If you closely examine, you will soon find that there is close relationship between the way teachers teach and the extent to which learners learn. Teaching like any other practical art, may be performed dexterously or awkwardly, professionally or amateurishly, competently or ineffectively, intelligently or stupidly. Successful teachers have a large number of techniques and methods in their repertoires and they always select the most appropriate way of looking into the nature of content to be taught, the objectives to be accomplished, and the readiness level of the learners whom they are teaching. They have their unique style of teaching and managing their classroom. Learning, however, does not totally depend on teaching alone. A number of learner factors can also impact learning. Let us discuss the relationship of teaching with learning and learners.

1.3.5 Relationship of Teaching with Learning

Student learning depends on the quality of teaching to a great extent. Successful teachers know that students pay attention to what they teach. Students perceive only when teaching is relevant and interesting. If students realize that what teachers teach are irrelevant, they are unlikely to pay attention to it. Similarly, if they perceive what is taught is dull and uninteresting, they are unlikely to pay attention to. We know that what students learn now, are not for today only, but also for the future. Their time in the classroom is not to be wasted on useless pursuits. So teachers need to realize that what they teach in the classroom should be something that is not only useful to them in the future but also it should be taught in such a way that they are able to remember it for a long time to come. This is possible only when teachers select contents and learning activities judiciously. When students perceive that what the teacher teaches is both useful and interesting, then they concentrate on it and as a result learning takes place.

Experienced teachers know that learner-centered methods of teaching provide better scope for active participation of students. When students are actively involved in the teaching-learning process, they are bound to concentrate on it. Concentration leads to better understanding and what is understood is easily retained by learners. Realizing this fact, if teachers give up the habit of teaching them through lectures or demonstration and resort to learner-centred methods of teaching, better learning is bound to happen. The more learner- centered methods are used for teaching, the higher will be the learning outcomes. Realizing this, instead of using expository methods like lecture or demonstration, teachers should use student centered methods like discussion, cooperative learning, role playing, assignments, projects, etc. The more is the student involvement, the higher will be the learning outcomes.

Another important way to bring about higher learning is the practice of using stimulus variation. If teachers go on using day-after-day the same method for teaching, students are likely to get bored. When they are bored, they naturally find it difficult to concentrate. To overcome this problem and to make learning more pleasurable, teachers should master a number of techniques and methods.

In case they do that, they can make their teaching interesting by resorting to a number of techniques as they teach. They may, for example, introduce a topic through a discussion, which in turn, may be followed by a description and then by question-answer, etc. They may also use a number of media like audio-visual media, human interaction media, realia and the like. With the incorporation and use of different media and techniques, learning will become more joyful. Learners would find it easy to concentrate and with it, better learning would result.

Teaching and learning, as we have already seen, are indisputably interlinked. A little extra care on the part of the teacher can bring in a better class room climate which can generate greater learning outcome on the part of the learners.

1.3.6 Relationship of Learners with Learning

Just as certain aspects related to teaching can make differences in learning, similarly certain traits and personal qualities of learner can also bring about differences in his/her learning. Certain qualities and traits of learners such as their level of intelligence, their attitudes, their motivation, their learning styles, aptitudes, their readiness to take risks, etc. can impact the way they learn.

Intelligence of learners is one of the reasons for their differences in learning. As for intelligence, there are no two persons who are the same. It differs from person to person. Some are highly intelligent. Others are average or low in their intelligence. Intelligence is linked with capacity to think, to reason logically, to make decisions, to solve problems, etc. Those who are intelligent or gifted, as compared with those who are average or low, can see through things, and learn things easily. They can cope with learning much better than those who are average or dull. Intelligence and learning, therefore, are closely linked.

Attitude of the learners is yet another trait that can make differences in the rate of learning. Attitude towards learning here refers to tendency of the learners to respond either positively or negatively to learning. If learners like the subject and the way the teacher transacts learning experiences pertaining to it, they are likely to have positive attitude towards the subject being taught. In case students like a subject and the way the teacher teaches it, they are tended to pay more attention to what is being taught. They are willing to spend the required time and energy for learning it. They begin to actively participate in the learning process. As a result, they are able to build up more knowledge and skills. Conversely, those students, who have a dislike for the subjects, are not likely to pay attention to teaching. As a result, they score poorly. This shows that the attitude of learners towards learning makes difference in their learning.

Motivation of students is another factor that shows up in their learning. A need or a motive is something that impels a person into action. This driving force can also come out of a desire or even from an emotion. It is motivation that drives things forward. If learners have a worthy goal in mind, and a burning desire to accomplish it, motivation would automatically arise. Achievement motivation is a powerful driving force for learning. The main characteristics of motivation are energy, determination, willingness to work, dedication, and commitment. When learners are motivated, nothing can stand in their way of accomplishments. Such learners would be willing to spend hours to learn. On the other hand, those learners, who are not motivated, would easily give up, when they are confronted with setbacks.

Just like intelligence, attitude and motivation, there are other factors like the cognitive style of the learners (their preferred way learning), their reflectivity (ability to reflect upon), readiness to take risks (courage to venture out into new areas), divergent ways of thinking rather than convergent ways, their personality dispositions such as introvertedness or extrovertedness, their self-esteem, etc. can impact their learning. Similarly, the mental state of learners, can also impact their learning. If they are emotionally disturbed, physically tired, they find it difficult to learn.

In sum, the way teachers teach and the extent to which learners learn are closely related. Similarly, if learners perceive teaching as good, relevant, and interesting, they are made to actively participate in the teaching-learning process, and there is sufficient level of stimulus variation in teaching, learners would find learning joyful and they would learn. On the other hand, if they find teaching teacher centered, and there is no scope for their active participation, learners may not be motivated to learn. In the absence of concentration, learning will suffer.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

- 5) Give any three reasons that make us perceive teaching as facilitation of learning.

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- 6) Write down any three factors that link teaching and learning.

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- 7) Note down any four learner related factors that impact learning.

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1.4 LEARNER CENTERED APPROACH TO TEACHING-LEARNING

There has been a trend since the 1980s and 1990s towards individuals taking more responsibility for their own development. The thinking that children's brains are blank slates to be written upon or empty vessels to be filled up was found to be pedagogically not sound. Learners are active and need to use and test ideas, skills through relevant activities. Instead of spending time memorizing materials, filling in the blanks, repeating similar problems, students should solve novel problems, integrate information and create knowledge for themselves. Teachers should encourage them to use active techniques to create more knowledge and then reflect on and talk about what they are doing and how their understanding are changing. Teachers should also know their pre-existing knowledge and guide the learners to build on the existing knowledge. They should help students assess how learning activity helps them in gaining understanding.

1.4.1 Meaning and Characteristics of Learner Centered Approach

Learner centered approach to teaching and learning, as noted above, is activity based. It focuses on student needs, interests and activities. In its present form, learner centered approach operates with students as the centre of learning. Activities for learning are planned jointly by teacher and students. Teacher is stimulator and facilitator of student activities. He/she employs such techniques and methods as discussion, debate, role play, cooperative learning, inquiry, games and other devices and activities for actively involving students in the classroom. Teachers always strive to look for activities that can usher in greater student involvement. As students are engaged in the whole process of learning, they come out with their own findings. They are made to look for links among things they discover. They make conscious effort to sense and find meaning in what they learn.

Characteristics of Learner Centered Approach

As we have already noted, learner centered approach to teaching and learning is carried out through the involvement of students into various activities. In the process learners construct their own knowledge and skills. Students centered approach to teaching-learning, as in the case of other approaches, is marked off by a number of characteristics. Examples of learner centred approach are project work, activity based learning, peer tutoring, field trip, group discussion, role play, drama, etc. Learner centered approach to teaching-learning, as in the case of other approaches, is marked off by a number of characteristics. Some of these characteristics are as follows:

- Learner centered approach is centered on learner needs.
- It is centered on cooperative determination of subject matter.
- It lays emphasis on variability of exposure.
- It lays emphasis on skills.
- It lays emphasis on immediate meaning of learning.
- It lays emphasis on indirect strategies.

If we examine the above characteristics of the learner centered approach to teaching learning, we can soon find that its characteristics are just opposite to those of teacher centered approach. While learner centered approach focuses on learner needs, teacher centered approach focuses on subject matter. While learner centered approach lays emphasis on variability of exposure, teacher centered approach lays stress on uniformity of exposure. While learner centered approach advocates learner controlled strategies for teaching, teacher centered advocates teacher controlled strategies for teaching.

1.4.2 Integrating Children's Voices and Experiences in Teaching-Learning process

Children's ideas and opinions contribute significantly to the teaching-learning process. As all of us know that they come to class with a lot of prior experiences pertaining to different subject areas. While teaching different contents, we must utilize their prior experiences in the teaching-learning process. Moreover, their voices in the transaction of learning experiences need to be respected. Research shows that when students are involved in the goal setting, their commitment increases. If they are included in deciding the goal of teaching, they tend to engage themselves more in goal directed activities. On the contrary, if teachers set goals for students, they are more likely to give up, as they perceive them as teacher's goals and not theirs. Involving students in all matters in which they are concerned in the classroom is one of the crucial ways through which teachers can generate commitment. If teachers wish to get full commitment and cooperation of students, they should involve them in open communication and make them participate in decision making and goal setting.

Teachers also need to realize that dependence breeds hostility. If teachers wish to reduce hostility, they should provide children with opportunity to experience independence. The more the autonomy, the less the enmity. The more the self dependence, the less the resentment. One of the ways to diminish hostility is to give student a voice and a choice in matters related to life in school, self-inferred decisions decrease defiance, reduce resilience and invite collaboration. Experienced teachers would give students opportunity to experience maximum possible autonomy and participation. Wherever feasible, they also would use the ideas, suggestions and opinions expressed by students so that they feel their input is valued. By using modalities such as these, experienced teachers would lead them to greater motivation and better accomplishments.

1.4.3 Children's Active Participation in Classroom Activities

Learning requires active participation of students in the classroom. The more they are involved, the greater would be the possibility of their concentration. As they closely interact with teachers, they understand what is being learned. What is understood is easily internalized and learned. So active participation on the part of students is very crucial for learning. The more active learning techniques teachers use, the more is the extent of knowledge and skills, they are likely to build up.

When teachers provide students with opportunities to approach learning as acts of discovery or inquiry, they engage themselves increasingly in learning with the autonomy of self-reward. This serves as stimulation and helps students maintain their own alertness. Providing opportunity for doing things that learners enjoy

makes them motivated. So teachers should structure their teaching in such a way that students become totally involved and acquire learning experiences which enable them excel both in academic as well as social learning.

Teachers can also make their lessons interesting for students by relating materials to students' lives, by making them vivid and novel, by using games, puzzles and other activities which are inviting. Similarly, by organizing a variety of activities such as field trips, stimulation, role playing, music, guest lectures and by switching on and off to different instructional techniques, methods and media, teachers can keep the interests of the students alive. Knowing one's subject and one's students, an imaginative teacher can do much to make teaching appealing to students' interest. He/she begins from what students already know and taking clues from their curiosity, their ambitions, their problems, he/she should show them how he/she relates to what is studied in school. Slowly and steadily, he/she would make students understand how such study can provide answers that lead them to more satisfying lives in future.

Teachers can also actively involve students in the teaching-learning process through the use of a number of active learning methods. Some of these activities which teachers could use in the classroom are as follows:

- Asking questions especially those of the open ended type.
- Getting students summarize what is being learned.
- Putting the newly learned information into pupils' own words.
- Relating the information to their prior knowledge.
- Getting them solve problems.
- Discussing with peers and others who are knowledgeable.
- Transforming the newly learned data into graphs, charts and tables.
- Notes taking and notes making.
- Applying the knowledge learned into novel situations, etc.

In this way, by resorting to learner centered methods like discovery, inquiry, etc, selecting activities students like, relating materials to students' lives, using active learning methods, teachers can make students active participants in the teaching-learning process.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

8) Write down any four characteristics of child centered ways of learning.

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- 9) Note down any three ways through which children's voices and experiences can be integrated into the teaching-learning process.

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- 10) List any five techniques that could be employed to ensure children's active participation in the classroom activities.

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1.5 CONCEPT AND NATURE OF LEARNING

As teachers, we need to have some basic understanding of what learning means. We will be confused and uncertain in our role as teachers if we are not clear about what learning is and what it involves. Learning can be best understood as a word which describes a change in an individual's range and repertoire of behaviour. It is the process by which behaviour is modified either by the addition of new and different abilities or by the extension and enhancement of those abilities which an individual already possesses. For example, learners at primary level know addition in mathematics. When they are taught subtraction, their ability to add now gets enhanced with ability to subtract.

1.5.1 Concept of Learning

Most psychologists perceive learning as a relatively persistent change in an individual's potential behaviour due to experience. According to this definition, learning mainly involves three aspects, namely (i) some relatively permanent change in the learner's behaviour, (ii) the change may be in the potential rather than necessarily in the actual performance, and (iii) the change must come about as a result of experience. The change that occurs in individuals owing to learning may be felt in their existing cognitive structure indicative of intellectual growth, development of newer life skills, methodological skills, attitudes, interests, etc. Thus owing to learning, changes are experienced in an individual's cognitive, affective and psychomotor domains.

If we look back, we can see that the concept of learning has not been the same throughout for the last 100 years. Three schools of thought have been found prevailing during these years. These schools are (i) behaviourist school of thought, (ii) cognitive school of thought, and (iii) constructivist school of thought.

i) Behaviourist School of Thought

The school of thought that remained dominant in the first half of the twentieth century was that of the behaviourism. The behaviourists gave focus only to those behaviours that can be observed and measured. They believed that learning is nothing but a stimulus response reinforcement process. When learners respond to the stimulus, if they are reinforced, their responses would get strengthened. So the behaviourists believed that learning is a response strengthening process. For example, when a teacher asks student a question in Environmental Sciences and the student responds correctly, then he/she rewards the student by saying 'excellent' or 'very good'. This acts as reinforcement to the student's response, which gets strengthened.

ii) Cognitivist School of Thought

As the behaviourist did not pay any heed to the inner processes involving learning and paid attention only on observable aspects, a new school of thought known as cognitivist came up. The cognitivists believed that every subject (discipline) has a structure and when information is presented in an organized manner through lecture or demonstration, learners would acquire knowledge and skills. The cognitivists believed that learning is nothing but acquisition, assimilation and accommodation of knowledge and skills in the cognitive structure.

iii) Constructivist School of Thought

The constructivists believe that learning is not that passive as the behaviourists think. They began to consider learning as personal and that everyone constructs his or her own knowledge and skills as a result of undergoing experiences. The knowledge the learner gets from experience and the prior knowledge he has related to it, gets integrated and as a result, new knowledge and skills are constructed. So constructivists believe that learning is nothing but construction of knowledge and skills as a result of undergoing new experiences.

More details about the schools of thought on learning will be discussed in Unit-2.

As our discussion above shows, the concept of learning has been steadily undergoing a conceptual change over the years. It has never been static. Let us now look at the nature or characteristics of learning.

1.5.2 Nature of Learning

As in the case of any other process, learning is also characterized by certain features. As educators of prospective teachers, it is advantageous to know that the nature and characteristics of learning. It is a complex process and so it has several features that need to be known. Some of the important characteristics of learning are as given below:

- Learning is complex and involves all sorts of things as knowledge, skills, insights, values, attitudes, and habits.
- Learning may be planned or unplanned.
- Learning can be triggered by any experience, failure, success, and anything in between.

- Learning can be active as well as passive.
- Learning is individual and can also be collectively generated in groups.
- Learning is both a process and an outcome.
- Learning may be incremental, adding cumulatively to what has previously been learned or transformed.
- Learning outcomes can be undesirable as well as desirable.
- Learning has a moral dimension.
- Learning is life-long.

Learning is, as it can be noted from the above list, multifaceted. It is complex, planned or unplanned, conscious or unconscious. It can be incremental, cumulative or transformational. It can be guided or independent. Learning is also life-long.

1.6 LEARNING: DEVELOPMENT OF KNOWLEDGE, SKILLS AND ATTITUDES

Teaching is an attempt to bring about desirable changes in the behaviour of learners. As a result of teaching, be it teacher-centred or learner-centred, learning would occur. Learning is the never ending process of becoming different from what we were. The main function of education is to equip learners with the required knowledge, skills and attitudes that are essential for leading life in the society effectively and efficiently. If left to themselves, people will not be in a position to pick up all the knowledge and skills they require. So with a view to facilitating the development of knowledge, skills, and attitudes, organizations such as schools and colleges are set up throughout the country. Attempts are made to study what individual and societal needs are. It is these needs that guide us as to what the objectives and goals of education should be. Once the objectives and goals are clear, we select and organize the content matter or learning experiences accordingly. The total list of learning experiences, including those of physical education, arts, painting, etc; are known as curriculum. The curriculum, in turn, is broken down in terms of subject areas. The list of items in each subject is called syllabus. Syllabus provides subject wise learning content or learning experiences. Using syllabus as guidelines, textbooks are prepared.

Teaching-learning is mainly carried out in the classrooms with the help of textbook. Each textbook has a number of units or chapters. Each unit has a number of sub-units in the form of lessons containing the learning matter and connected learning experiences and activities. During the transaction of the content matter and organizing various activities students get the opportunity to acquire knowledge, skills and attitudes. As a result, students are able to get information, do activities and develop attitudes which they were not capable of earlier.

The task of educating the young is simply too important and complex to be handled entirely by someone who lacks expertise in teaching. Modern societies staff their schools with expert teachers to provide instruction. Teachers are expected to use the best practices to help students learn essential knowledge, skills and attitudes. It is no longer sufficient for teachers to employ teaching practices based solely on intuition, personal preferences or conventional wisdom. They need to use teaching practices that have been shown to be effective. Only

when teachers employ the most appropriate modalities for teaching-learning, students will be in a position to acquire the requisite knowledge skills and attitudes.

1.6.1 Development of Knowledge

Studies carried out by cognitive psychologists like Bruner and Ausubel found that each discipline has a structure consisting of key concepts that define the discipline. They argued that when knowledge is organized systematically and presented to students using expository methods such as lecture or demonstration, they will understand it easily. Expository methods are those methods through which learning experiences are presented to learners by teacher in finite form. Learners are to receive learning experiences from the teacher as presented by him/her. If the content is organized logically, they easily fall into patterns. It is these patterns that give meaning. What is meaningful is easily understood and as a result, it is easily internalized and retained by learners.

Teachers involve students into various activities and experiences so that they will be able to acquire the required knowledge. They need to know language, mathematics, sciences, etc. They also need to know about physical education, value education, etc. In fact, students need to be equipped with all sorts of knowledge to bring about their all round development.

In helping students acquire knowledge, we should not be satisfied with just introducing them to the level of knowledge, understanding and application. We need to take them to the higher levels of cognitive abilities such as analysis, synthesis, evaluation and creating. Only when they have picked up critical thinking ability (analysis), creative thinking ability (synthesis), and evaluative thinking ability, the learner will be able to make decisions, solve problems and handle tasks with ease and efficiency. Knowledge has no meaning unless it is put to use. So while teaching, focus needs to be laid on what students can do with what they know.

1.6.2 Development of Skills

Through the process of teaching-learning, knowledge is not the only thing that we expect learners to develop. We also expect them to develop skills and attitudes. A skill is a learned activity that one develops through practice and reflection. To be skilled is to be able to perform a learned activity well and at will. Each skill may consist of a number of sub-skills. It is these component skills that make up the overall skill. Lack of mastery in one of the sub-skills can affect what would otherwise be a good performance. You may, for example, have the potential to be an excellent essay writer; however, you may be very poor in structuring your ideas or using paragraphs. This may put hindrances in your becoming an effective writer.

Skill, as an ability to perform something, includes proficiency, competence, and expertise in the activity. Skill refers to learning of psycho-motor behaviours required in activities like riding a bicycle, driving a car, swinging a tennis racket or even something like tying a shoe lace. As practice of such skill continues, they become more efficient and can be performed with little conscious thought or recall. There are three stages in the development of an automated skill. These stages are as follows:

- 1) Cognitive Stage (following directions guided by declarative knowledge).

- 2) Associative Stage (combining individual steps into larger units)
- 3) Automated Stage (where the whole procedure can be accomplished without much attention).

In the last stage, the brain process shifts from reflective to reflexive. When driving a car for the first time, for example, you get a lot of instructions from your trainer which belong to cognitive stage, and you have to give a lot of conscious attention to your speed, putting your foot on the correct pedal, observing the surrounding traffic (reflective) which pertain to associative stage. As you drive, the skills are procedural and they become more automatic as you get used to it (reflexive), which is automated stage. Although learning a new skill involves conscious attention, skill performance later become unconscious and relies on non-declarative memory. Much of what we do during the course of a day such as taking breakfast, reading newspaper, get to work, etc are automatic.

1.6.3 Development of Attitudes

As a result of learning, we develop not only knowledge and skills but also attitudes. Attitude is a mental state held by an individual which affects the way that person responds to events and organizes responses. Attitudes are commonly held to have three essential components or dimensions: (i) a cognitive dimension involving the beliefs and rationalizations which explains the holding of the attitudes, (ii) an affective dimension involving the emotional aspects of attitude such as likes, dislikes, feeling of distaste, and (iii) a conative or behavioural dimension which involves the extent to which the individual are prepared to act on the attitude that they hold.

Attitude refers to affective or emotional state of pleasantness or unpleasantness of the mind. Emotions help learning in two ways, namely (i) the emotional climate in which learning occurs, and (ii) the degree to which emotions are associated with learning content.

i) Learning Climate

Attitude develops as a result of the perception of climate of the condition in which learners function. When learners feel that the people with whom they are interacting are genuine and that they are interested in their well being, learners feel happy. They feel comfortable in the company of teachers and others and as a result a good rapport come to prevail. This leads to effective interaction which results in learning. Depending upon how learners perceive about the condition in which they function, they turn out to be positive or negative. When they are positive and happy, endorphines are released in the brain. This produces a feeling of euphoria which makes their learning experiences pleasurable and successful. Conversely, if the learners are stressed and negative, cortisol is released which activates defence behaviours such as fight or flight.

ii) Content and Methods of Teaching and Attitude

Attitude is developed not only as a result of the perception of the climate under which learners function but also as a result of the content they learn and methodology being used. If the contents they learn are interesting, learners will develop favourable attitude towards it. Similarly, if teachers use strategies such as simulation, role playing, journal writing and the like, students would

develop favourable attitude towards learning. If learners' study experiences are pleasant, they are impelled towards continuing it. If unpleasant, they tend to avoid learning. In short, learners develop their attitude not only depending upon their perception of the condition under which they function but also on the content being taught and the methodology being employed for teaching by teachers.

1.7 DIFFERENT WAYS CHILDREN LEARN

As we have already noted, learning is a relatively permanent change in behaviour as a result of undergoing experiences. The experiences we resort to for learning can take different forms. We learn as a result of experience, observation, exploration, experiment, etc. We learn something or other all the time when we are awake and alert. Our sensory organ keep on capturing and passing on information pertaining to everything which we pay our attention to. It would be quite beneficial to know what these different ways through which we learn. So an attempt is made in what follows to give a brief description of some of the important ways through which we learn.

1.7.1 Imitation

Imitation is one of several ways through which people learn. Children generally imitate their parents. Small girls generally take their mothers and small boys their fathers as role models. They try to imitate their parents in many things. Even adults are seen imitating others in several matters. Those, who are not confident or assertive, for example, are seen looking for people, who are confident and assertive. Once they find such people, they watch their behaviour very closely and try to act the way they do. In course of time, as a result, those who are not confident or assertive, are found to have turned out to be assertive or confident. They have learned to be assertive or confident as a result of imitating people who are assertive or confident.

1.7.2 Observation

Observation is another way to learn. Suppose we want to learn about the social behaviour of chimpanzees, we have to go to their natural habitat which happens to be the forests. There we observe them closely. As a result of observation, we would learn how chimpanzees behave when they are in groups. We take in details of their habits. Thus, as a result of observation, we gather details of the objects regarding the shape, size, colour, etc. As these details of the objects we observe get organized, they fall into patterns giving meaning to the things observed. This leads to learning.

1.7.3 Experience

Learning is based on and follows from experience. Most things we know are learned through experiences. After having undergone an experience, if we reflect over it, with the help of a few questions, we will learn a lot out of it. Questions such as; what was the purpose of the experience? What did I learn out of it? What went right? What went wrong? Why did it go wrong? etc. As we pose questions such as these and seek answers to them, we learn a lot out of it. Undergoing experiences and their reflection over them is one of the best ways to learn. For example, while teaching cultural diversity, students may be taken to a

local fair (mela) and exposed to experience various kinds of people, their dresses, food habits, etc.

1.7.4 Teaching

Apart from learning through imitation, observation and experiences, attending classes where experts are invited to teach is yet another way to learn. Teachers select a topic, subject it to content and task analysis, and expose students to the topic through lectures. The students listen to the lecture and as a result, they learn.

1.7.5 Instruction

Instruction is usually concerned with physical rather than cognitive skills. This system, often involves demonstration with supporting explanation. The demonstrator demonstrates how some task is performed. The learners listen to the explanation and watch the performances. As a result, the learners acquire knowledge and skills.

1.7.6 Trial and Error

When an individual is confronted with a problem, and is not sure of which option is the most appropriate, he/she may opt for the one that he/she thinks is the right one. If he/she finds that it does not work, he/she may go for another. This process continues until he/she arrives at the right solution. In this process of trial and error, he/she learns a lot. For example, learners at elementary level learn mathematical puzzles through trial and error method.

1.7.7 Reflection

Reflection is an effective way to process information and learn. One who is reflective has a tendency to consider and deliberate alternative solutions to problems. Conversely, one who is impulsive, has the tendency to respond spontaneously without deliberation especially in situations of uncertainty. One who is reflective, uses cognitive powers such as reasoning and analyzing to make sense of things that he or she is required to do. In the process of reflection, he/she learns a lot. For example, while teaching the impact of deforestation, students may be asked to reflect upon the advantages and disadvantages of deforestation.

1.7.8 Experimentation

Conducting experiments is yet another way to learn. When we are in doubt, it is not always wise to rely on intuition and guessing. Our guessing may often go wrong. To get to know the reality, we have to resort to experimentation. As a teacher, for example, you may think that your students as a whole have positive attitude towards your ways of teaching and so they will come out with good academic achievement. Our thinking can be one thing and the reality may be another. In case, we choose to conduct an experiment, we can certainly arrive at the reality. In the course of the experimentation, we learn several things.

As we have seen, there are quite a number of ways through which we can learn. However, as learning can neither be observed nor measured, it is difficult to attribute specific instances of learning to particular methods. It is, therefore, reasonable to assume that learning job related capabilities involves several methods in combination or sequence, which have a complementary and cumulative

effect. Different methods and approaches have their distinctive characteristics and limitations. Our success in learning, to a great extent, depends on our ability to select the most appropriate method, not the best one, looking into the nature of matter to be learned and the objectives for which it is learned.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

11) What are the three stages of development of skills?

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12) What are the components or dimensions of attitudes?

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13) Illustrate how children learn through imitation and experience.

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1.8 LET US SUM UP

Teaching is an attempt to bring about the required changes in the cognitive, affective and psycho-motor domains of learners. If teachers are to do their job with efficiency and effectiveness, they should have sound knowledge base not only in the content areas they teach but also in matters related to pedagogy. They ought to know what teaching is, what its characteristics are, how teaching is related to learners and their learning, what learner centered approach to teaching-learning is, how to integrate learner voices and experiences in the teaching-learning process, as well as how to bring in active participation of students in the teaching-learning process.

Apart from understanding the concept and nature of teaching and other pertinent aspects related to teaching, teacher ought to know about learning and its specific nature. As a result of teaching, be it teacher-centred or learner-centred, learning takes place. As a consequence of learning, tentatively permanent changes occur in the cognitive structure of learners. They acquire knowledge, skills and attitudes. If teachers are to make the most of their teaching, apart from knowing the concept and nature of learning, they ought to know different ways through which children learn as well as all the pertinent aspects related to their learning. Only then, they will be able to carry out the act of teaching in the classroom at the optimum level possible.

1.9 UNIT END ACTIVITIES

- 1) List a few activities, which according to you, come under good examples of teaching.
- 2) Analyse your functions as a teacher at the elementary level and list out various activities you perform.

1.10 POINTS FOR DISCUSSION

- 1) State at least three advantages of learner centered approach to teaching-learning.
- 2) Bring out the differences among teaching, instruction, and training.
- 3) Suggest any three ways to integrate children's voices and experiences in the process of teaching-learning.
- 4) Suggest some of the ways to ensure active participation of students in the classroom activities.
- 5) Teaching is facilitation of learning. Discuss.

1.11 SUGGESTED READINGS AND REFERENCES

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1.12 ANSWERS TO CHECK YOUR PROGRESS.

- 1)
 - i) Teaching is a process of attempting to promote changes in the learners.
 - ii) Training is the act of transferring knowledge and skills from one who knows to one who doesn't know.
 - iii) Instruction is a process which involves demonstration with necessary explanation mainly to develop skills.
- 2) Teacher centred teaching is exposing knowledge and skills to students through lecture or demonstration while learner centred teaching is teaching students through various activities.
- 3) In vertical teaching the focus is on teaching students a topic in detail while in horizontal teaching the focus is on covering more areas or topics.
- 4) Teaching is a science as it requires a solid understanding of various principles of teaching and a deep knowledge of the subject matter. It is an art as it involves handling of a host of considerations of form, style, pace, rhythm and appropriateness.
- 5) Teachers provide learners with all learning resources. They motivate students to learn through various activities. They assist student at every step.
- 6) Teaching is interesting; if teachers teach what is relevant, and if they employ methods that actively involve students.
- 7) Certain qualities and traits of learners can impact the way they learn are: (i) intelligence, (ii) attitude, (iii) motivation, and (iv) style of learning.
- 8) Learner centered approach to teaching and learning focuses on: (i) learner needs, (ii) subject matter determining by both teachers and students, (iii) employment of indirect ways of teaching, (iv) focus is on development of skills.
- 9) Integrating children's voices and experiences in teaching-learning process requires: (i) involvement in goal-setting, (ii) participation of students in all matters they are concerned in the classroom, (iii) use of ideas, opinions expressed by students.
- 10) Children's active participation in classroom activities can be enhanced through: (i) asking questions, (ii) getting students solve problems, (iii) summary writing, (iv) discussion with peers and other knowledgeable people, (v) transforming information into charts, graphs, etc.
- 11) There are three stages in the acquisition of skills. These are: (a) cognitive stage, (b) associative stage and (c) automated stage.
- 12) The components or dimensions of attitude are:
 - i) Cognitive dimension involving the beliefs and rationalizations which explains the holding of the attitudes.
 - ii) An affective dimension involving the emotional aspects of attitude such as likes and dislikes.

- iii) A conative dimension which involves the extent to which the individual are prepared to act on the attitude that they hold.
- 13) Children learn a lot of things by imitations from the behaviours of parents, peers and elders in the neighborhood. For example, elementary school children learn the role of different characters in a drama by imitating the role played by their elders and peers. They learn new things through experience by engaging themselves in different activities. They learn the preparation of clay model when they themselves prepare models from clay.

UNIT 2 TEACHING AND LEARNING: DIFFERENT PERSPECTIVES

Structure

- 2.1 Introduction
- 2.2 Objectives
- 2.3 Concept of Learning
 - 2.3.1 Behaviourist Perspective
 - 2.3.2 Cognitive Perspective
 - 2.3.3 Constructivist perspective
 - 2.3.4 Socio-Cultural Perspective
 - 2.3.5 Economic and Political Perspective
- 2.4 Let Us Sum Up
- 2.5 Unit End Activity
- 2.6 Points for Discussion
- 2.7 Suggested Readings and References
- 2.8 Answers to Check Your Progress

2.1 INTRODUCTION

All of us are engaged in the process of learning consciously or unconsciously. Learning is a continuous process that helps us to develop competence and ability to function in our environment. We acquire knowledge, skills and attitudes through the process of learning and develop competence and ability to apply, whatever we have learnt in one situation, to other similar situations. From our experiences, we know that we learn consciously and unconsciously both from our interactions in formal settings and informal settings such as home, community, market place, and our social interaction with others. Sometimes we learn through trial and error, sometimes we learn through our insights and sometimes we learn through our social experiences and interaction. You might have also experience that some persons learn very quickly while others take lots of time to learn the same thing. If you reflect on your life, you would find that you continuously improve on the basis of your experiences and actions over the years. Therefore, learning seems to be a very comprehensive term encompassing multiple interpretations. In this unit, we would discuss learning from different perspectives having implications for your classroom transactions. In this unit, we would discuss different views on learning and their subsequent influence on teaching.

2.2 OBJECTIVES

After going through this unit you should be able to:

- explain the concept of learning from behaviourist, cognitive, constructivist and socio-cultural perspectives;
- discuss the economic and political perspectives of teaching learning;
- distinguish between different types of learning; and
- describe the implications of different perspectives of learning on organizing learning experiences for students in the classroom.

2.3 CONCEPT OF LEARNING

During childhood, a child learns to walk, talk, interact with social groups, and learn the mannerisms of a particular community or society. Most of these behaviours are either acquired instinctively, or by observation or imitation. As a result children are able to adjust themselves to the demands of environment. All of us admit that we have changed a lot due to various experiences of life. You have observed that when children join school they are so naïve, but slowly they acquire educational as well as social skills that take them towards perfection. It may be stated that a person acquires behavior relating to knowledge, appreciation and skills through his/her interactions with others and through experiences. This acquisition of the stock of behavior facilitates better adjustment with environment and is the result of the process of learning. Learning is often defined as change in behavior that takes place due to experience or practice. But it is distinct from growth which is a natural process of maturation and comes irrespective of experience. For example, a child's weight and height increase. It means that there is growth in the child. But the growth is different from learning. For example, before joining the school, a child was not able to perform addition or subtraction. After joining the school, he/she is able to perform them. This change in the child's ability to perform addition or subtraction is learning.

Theories on human learning can be grouped into four broad perspectives. These are :

- 1) Behaviourism- focus on observable behavior
- 2) Cognitive – learning as purely a mental/ neurological process
- 3) Humanistic – emotions and affect play a role in learning
- 4) Social – humans learn better in group activities

Each of these approaches give their own perspective of the concept of learning and within each of these perspectives there are a number of theories. Learning, according to behaviourist view, is considered as a ***permanent change in behavior due to experiences***. Cognitivism defines ***learning as acquisition of knowledge, comprehension, skill etc.*** While learning is considered as a ***process of knowledge construction based on the individual experiences of learner*** by the constructivist view of learning. Burns (1995) conceives of learning as relatively permanent change in behavior, with both observable activities and internal process such as thinking attitudes, and emotions. He considers that learning might not manifest itself in observable behavior until sometime after the educational programme has taken place. Let us now focus on the theories of learning in some details and see how they influence your class room transaction.

2.3.1 Behaviourist Perspective

How small children learn alphabets or numbers in the school? Why do you give more and more exercises to small children? What is the relevance of exercise in learning? Have you ever given a thought on the principles underlying the learning process of children of your class? Take an example: what happens if something good smell comes from your kitchen? You start salivating. Here smell of food is Natural Stimulus (NS) and salivation is Natural Response (NR). How the child learns that a particular bell is meant for the lunch break in the school? He/she associates and identifies different periods because of the association he/she is

able to make between different activities carried out by different teachers or even by the same teacher in different periods on the basis of associations established between bell or teacher (stimulus) and the activities carried out in that period (such as mathematics, English or lunch period etc.). All these instances are examples of Behaviourist way of learning.

This school of thought defines learning as an association between **stimulus** and **response**. The organism responds to the stimuli present in the environment in several ways and when it gets a most satisfying result, the association between the stimulus and the particular response is established, which results in learning. Association plays a very important role for beginners in the school. Association Theory of learning has initial roots to the work of Guthrie, Pavlov, Watson, Thorndike and Skinner. According to E.R. Guthrie, if certain stimulus is followed by a response, then the next time that stimulus appears, the same response will follow. Guthrie believes that the teacher should provide stimulus for the students to respond.

Skinner has identified two types of responses; First the respondent response and second the operant response. *Responses that occur due to external stimulus are voluntary reflexes and called as Respondent Responses. Responses that occur due to the consequences of an action are known as Operant Responses.* All operant behaviours are voluntary actions. For instance, riding a bicycle, driving a car, going to a movie, watching TV, painting a picture, or writing a poem, etc, are called **operants** because they are operations that individual carries out to help him/her deal with the environment in some way. ***Behaviorist theories of learning, thus, consider learning as a change in behavior of the organism through conditioning process that occurs between a stimulus and a response.*** It is basically of two types- Classical Conditioning and Instrumental or Operant Conditioning. Let us first discuss classical conditioning.

Classical Conditioning

Learning from the perspective of classical conditioning is reflex learning. It is also known as Pavlovian conditioning named after Ivan Pavlov, a physiologist by profession who conducted famous experiment of salivation of dog. Under the experimental condition, he observed each time food was presented to the dog, it started salivation. Hence food was Unconditional Stimulus (US) and salivation the Unconditional Response (UR). Through his experiments, Pavlov demonstrated that after several trials when food was presented followed by the sound of Bell (Conditioned stimulus) the animal developed an association between sound of bell and food. After few trials it was observed that the dog started salivating by the mere sound of the bell even if the food was not given to him. This is known as the ***principle of association or continuity***. Children learn in many different ways. They produce similar response to stimulus having similarity which is known as ***principle of generalization***. For instance, they are able to identify apple from the basket of fruits irrespective of its colour or texture. They are able to apply their mathematical knowledge to day to day transaction at the grocery shop etc. The ability of differentiation is known as the ***principle of discrimination***. For example in Pavlov's experiment when the dog was given food on the sound of bell, and not on some other sound, after some trial he was able to distinguish the sounds of bell and other sound. With the result, it salivated only on the sound of bell. However, if the sound of bell was not followed by

food then after some trials the association between bell and salivation was weakened and gradually the dog stopped salivating. This is called as ***principle of extinction***.

Generalisation, Discrimination and Extinction play a crucial role in the learning process at the initial stages where simple learning takes place. As a teacher, you would like your students to acquire positive attitude towards you and your subject. Your attitude and behavior in the class may help in developing interest among students to study the subject. You can use classical conditioning to develop positive association between your teaching activities and learning. However, classical conditioning is of little help in guiding us about how children learn. We all know that children learn in many different ways- sometimes by trial and error, sometimes by developing insight into the problem, and sometimes by the life experiences. Let us then understand some more complex forms of learning.

Trial and Error Learning

If you observe the learning style of children, you find that sometimes they just use trial and error method, while on other occasions; they are more focused and use their insight in learning. They are also influenced by reward and punishment, and their own mental preparedness etc. Thorndike believed that learning is incremental and individual learns through trial and error approach. His theory of learning did not consider that learning takes place as a result of mental constructs. Instead he demonstrated how mental connections are formed through positive response to particular stimuli. For Thorndike, learning was based on an association between sense impressions and an impulse to action. He emphasized that the environment could be structured in such a way to ensure that some stimuli would produce learning. With the help of his experiments on a cat, Thorndike demonstrated that reward has a positive impact on cat and helped in developing S-R connection. Through his experiments, Thorndike derived several laws that have implications for teaching and learning. They are as follows:

Law of Effect: Law of effect means that behaviors that bring a satisfying effect (reinforcement) have the probability to be repeated again, whereas behavior that brings about negative effect (punishment) is apt to be suppressed. Therefore this law involves the emotional reaction of learner. As a teacher you should bear in mind that learning will be more effective in a pleasant and conducive environment where learners derive satisfaction and appreciation for their work. In contrast if the experiences are unpleasant they tend to avoid it.

Law of Readiness: It means that mental and physical readiness of the learner influences his/her learning. Take the instance of your classroom you might have observed that when your students are motivated and ready to learn they actively participate in classroom activities and are more receptive. The physical maturity of students is also a crucial component that affects his/her readiness for learning.

Law of Exercise: There is a saying that ‘practice makes a man perfect’. Law of exercise emphasizes that repetition is basic to development of adequate responses. All of us need exercise as we can rarely recall new concept or practice after a single exposure. Every time we practice learning gets reinforced.

From the descriptions of these principles, it is clear that physical maturity, mental readiness, and pleasant experiences in school and adequate exercise plays crucial role in teaching-learning process.

Operant Conditioning (Role of Reward and Punishment in Learning)

One of the significant contributions of behaviourism is the role of reward and punishment in the process of learning given by Skinner. Skinner believed that behavior is a function of its consequences. His theory of learning is known as Operant or Instrumental Conditioning as the consequences of behavior lead to changes. The learner repeats a behavior if the consequence is pleasant, and avoids the behavior having negative consequence. Skinner has explained learning with the help of reinforcement. ***Reinforcement is a reward or a stimulus condition that augments the frequency of behavior preceding it.*** It is both positive and negative.

Positive reinforcement is a positive reward that strengthens the Stimulus-Response bond. It is both verbal such as praising, or awarding; and non-verbal such as nodding the head in appreciation, smiling, etc. **Negative reinforcement** also strengthens a behavior and refers to a situation when a negative condition is stopped or avoided as a consequence of the behavior. Both facilitate learning and strengthen it. **Punishment**, on the other hand, weakens a behavior. It is very important for you here to understand the difference between negative reinforcement and punishment. Let us examine the instances given below and try to understand the difference.

Instance 1- You are teaching in the class but students are not able to concentrate because there is lots of noise outside. You asked a student to close the door and after this, the noise reduced and students are able to concentrate in their studies.

Instance 2- You are teaching in the class but one student is not paying attention and disturbing others so you ask him to go out of your class.

Instance 3- The child has given good response, you smile and nod your head to show your pleasure.

The first Instance is an example of negative reinforcement as noise has been intervening the learning process and closing the door has facilitated learning, while the second instance is an example of punishment as some unwanted behavior has been shown and through punishment you are trying to ensure that it can be discouraged. Third instance is positive reinforcement. We use reinforcement in the classroom daily while teaching. Sometimes you praise a student, sometimes write comments like 'good' 'fair' or 'needs improvement' on their assignments/works, and sometimes simply show your pleasure or displeasure through facial expressions and gestures. Reinforcement plays a very important role in behaviourist learning theory given by Skinner. Through various schedules of reinforcement, Skinner demonstrated that behavior can be shaped or modified. Principles of operant conditioning have been widely used in programmed learning and preparation of programmed learning materials for individualized instruction.

Box: Applying Behaviourist learning principles in classroom

- Make students understand the rules and regulations of the class.
- Encourage students to work in small groups for difficult learning tasks.
- Greet students and smile at them.
- Inform students clearly and specifically the format of test, examination or quiz.

- Use attractive learning aids.
- Provide feedback to students on their performance.
- Reinforce student each time he/she performs correctly.
- Vary the frequency of reinforcement to ensure students are attentive.
- Give ample time to students to prepare and complete the learning tasks.

Activity 1

Analyse your own teaching-learning process of one class and reflect on the instances where you provided feedback and reinforcement to students and identify the type of reinforcement you used. Write in about 150 words.

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Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

- 1) Distinguish the concept of learning from behaviourist and cognitive perspectives.

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- 2) What is negative reinforcement and what is its role in learning?

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2.3.2 Cognitive Perspective

According to behaviourism, learning is the product of stimulus response bond or association that takes place due to the presentation of a series of discrete stimuli and the resulting responses. Learners' response is linked to a particular stimulus through mere trial and error. Insight plays no role in learning process. The

behaviourist perspective was later on criticized by many theorists, who believed that individuals perceive situation as a whole and their learning is based on this perception and not merely through trial and error or on the basis of reward and punishment. This learning theory is known as Gestalt theory and associated with the Gestalt psychology. Psychologists such as Bruner, Piaget, and Ausubel worked on cognitive learning, based on Gestalt psychology. Cognitive theories focus on how people gain an understanding of themselves and their environment, and how, in using this, they act in relation to their environment. The earlier cognitivists used the term '*insight*' to explain the approach to problem solving, while the modern cognitivists view human beings as *information processors*.

The basic principles underlying cognitivism is that learning is an active process involving change in cognitive structure (structure of concepts in mind); and it requires cognitive efforts and accurate conceptual understanding. For example if a student lacks conceptual understanding of various mathematical equations, he/she may not be able to solve it correctly.

Cognitive theorists emphasise experience, meaning making, problem solving, and development of insight. Therefore, according to cognitive perspective, learning is an active and dynamic process in which perceptions are processed through differentiation, generalization, and restructuring. *Differentiation* as the name suggests is the learner's ability to distinguish between different objects or experiences. Let us take a very common example, an infant perceives all adult ladies as 'mother', but gradually he/she starts differentiating them into mother, aunt, nurse, teacher, and servant, etc. This process of differentiation assists in the process of **generalization** and vice-versa. Through the process of generalization things, objects, and events having similar characteristics are put in one group. The learner gradually starts categorizing things, objects, and concepts in separate categories having common characteristics. For instance, if you have asked students of the class to identify birds and animals from the list of names such as dogs, pigeon, parrot, cats, crow, and cows, etc. and they are able to correctly categorize it in two groups they have used the principles of generalization and differentiation. The process of differentiation and generalization leads to the process of **restructuring**. The learner restructures his/her cognitive structure to accommodate these differentiated and generalized concepts to gain control of himself / herself and the world.

Developmental Theory of Piaget:

Piaget was one of the important cognitive psychologists whose contribution to cognitive development of child is widely acknowledged. Piaget believed that students create knowledge rather than receive knowledge from the teacher. He recognized that students construct knowledge based on experiences and this knowledge construction process is related to the biological, physical and mental stages of development. Piaget has explained cognitive development through four important stages of development which occurs in a sequence. Each phase has a defined maturational period and distinct cognitive abilities. These four phases are presented in Table 2.1.

Table 2.1: Piaget's Stages of Cognitive Development

Period	Age	Characteristics
Sensori-motor stage	0 to 2 years	Infant learns to differentiate between self and objects in the external environment.
Pre-operational stage	2 to 7 years	(2-4 years) Child is ego-centric but classifies objects by identifying salient features. 4-7 years is the intuitive age when child thinks in classificatory ways but may be unaware of classification.
Concrete operational stage	7 to 11 years	Develops ability to use logical operations such as reversibility, classification and serialization.
Formal Operational stage	11 years and above	Abstract thinking starts.

Piaget's views of learning were more descriptive of cognitive development that invited two major criticisms. First, his analysis stops at the age of fifteen, whereas individuals continue to grow and develop cognitively. Second, for Piaget, the stages of development are relatively discrete. Bruner later on provided a more prescriptive theory of learning. Bruner emphasized more on the nature of learner, the structure of knowledge, and the nature of knowledge acquisition process.

Piaget's work created the foundation of constructivism and has two major implications for teaching and learning. **First, *Learning came to be considered as an active process in contrast to the behaviourist perspective of stimulus-response association.*** The experiences of learners were recognised and considered essential for assimilation and accommodation of information. **The second important contribution of Piaget's theory is that *learning should be whole, authentic, and real.*** Learning occurs as the child interacts in meaningful ways with the world around him. Therefore, direct teaching in the classroom has to be replaced by facilitating conditions by the teacher that enables learners to construct their own knowledge through their own experiences. Piaget advocated active schooling in order to ensure full development of human personality. He emphasised the role of play in the formation of symbolic thought, and discussed certain socio- emotional benefits of play. He suggested work oriented classrooms and combining work with play. The most important implication that can be drawn from Piaget's work is his emphasis that teachers must establish egalitarian and cooperative relationship with children and promote their autonomy. Teachers, therefore, should involve learners in the decision-making process about classroom events and procedures, conflict resolution, and social and moral discussions. They promote learners' shared experiences, reciprocal reasoning and, feeling about relations with others.

Bruner developed the idea that if complex material is broken down into essential ideas, any student can learn any subject matter. He developed the concept of spiral curriculum. Bruner advocated the discovery learning approach. Learner should be presented a problem situation and motivated to seek alternative solution.

Therefore, instruction based on Bruner's theory is learner centered placing learners as active participants. Learner should be actively engaged in the learning process, and varied experiences should be provided to learners to ensure that their individual needs and individual differences are properly addressed. It is also important to provide reinforcement at important juncture as such knowledge would be useful in moving forward to achievement of goal.

According to Bruner, learning is an active process in which learners construct new ideas and concepts based upon their current/past knowledge. The learner selects and transforms information, constructs hypotheses, makes decisions and relies on cognitive structures to do so. Cognitive structure (i.e. schemata and mental models) provides meaning and organisation to experiences, and allows individual to go beyond given information. Bruner illustrated his theory in the context of mathematics and social science programmes for young children, but it can be applied to all subjects. He acknowledged various stages of development of learner, however, unlike Piaget, he did not specify any age at which these developments may take place. Therefore, while Piaget's learner progresses from one stage to another, according to Bruner's developmental stages, it is possible for an adult to switch from *iconic* to *symbolic* as opposed to going from formal operational to sensory motor.

Bruner emphasised the role of social context in learning and observed that knowledge construction is not an isolated process but is embedded in the social context. He identified three stages of cognitive growth- *Enactive* stage in which the child represents and understands the world through actions that involve motor responses, or ways to manipulate the environment. The second stage according to Bruner is *Iconic stage* in which the child represents the world in images that stand for certain objects and events. This stage corresponds to Piaget's preoperational stage and its principle of conservation. The third stage is *Symbolic stage* in which child is able to use abstract ideas, symbols, language, and logic to understand and represent the world.

Bruner's method of teaching, called *Discovery Learning*, is based on his theory of constructivism and is widely used in science and mathematics teaching. According to Bruner, issues or question that guides the discovery process must be personally and socially relevant. Curriculum should, therefore, be organized in a *spiral* manner so that students can build upon what they have already learned. His concept of 'spiral curriculum' is based on the idea that any subject can be taught effectively in some intellectually honest form to any child at any stage of development. In short, the principles that permeate Bruner's theory are given below:

- Instruction must be based on the prior knowledge of learners that help learner's readiness and ability to learn. For example, a teacher of geography, before teaching latitude and longitude, must ensure that students have prior knowledge of maps and globe.
- Instruction should be structured so that it can easily be understood by learners, but instead of linear organisation of instruction it should be spiral to enable the learner's movement back and forth based on his/her individual experience and familiarity with the content. While teaching diversity, a teacher at elementary level should organize the content around the students' familiarity with linguistic, religious and cultural diversities.

- Instruction should be designed to facilitate extrapolation (going beyond the given information). After telling students that environmental pollution may be air pollution, noise pollution, water pollution, etc. teacher may ask the students to think any other pollution they know.

Bruner also recognized the importance of the *role of language* in cognitive development. He investigated how adults use language to mediate the world for children and help them to solve problems. Scaffolding- *talk that supports a learner in carrying out an activity as a kind of verbal version of fine tuned help* is important in this context which facilitates the process of knowledge construction. Bruner maintained that people interpret the world in terms of similarities and differences which are detected among objects and events. Objects that are viewed similar are placed in same category. The major variable in his theory of learning is the *coding system* into which the learner organises the category. Bruner's theory of cognitive learning emphasises the formation of these coding systems. Coding systems facilitate transfer, enhance retention, and help in problem solving and motivation. He advocated discovery oriented methods in schools which help students to discover the relationship between various categories. Bruner's major contribution has been in the area of process of education and the development of curriculum theory. For example, a science teacher while teaching animals can ask students to categorise them into herbivorous and carnivorous.

Another Psychologist who made significant contribution towards learning is David Ausubel who gave the theory of Receptive Learning (RL) or Meaningful Verbal Learning (MVL) and advance organizer. According to Ausubel, meaningful learning process pre-supposes two things: a) the learning task is potentially meaningful or that it can be related substantively to the learner's cognitive structure, and b) the learner manifests a corresponding set to relate it.

Meaningful learning entails the internalization of material presented to the learner through progressive differentiation and integrative reconciliation. Thus meaningful learning depends on the nature of material to be learned, and the availability of relevant content in learner's cognitive structure. Unless these two conditions are met it is unlikely that learning will take place. This theory has relevance especially for classroom teaching because it emphasizes the previous experiences of learners in meaningful learning. In such type of learning potentially meaningful material enters the cognitive field and interacts with and appropriately subsume under a relevant and more inclusive system. There are three kinds of meaningful reception learning. These are representational learning, concept learning, and propositional learning.

Representational Learning: This type of learning takes place in early childhood period. It involves learning the meanings of symbols and words and what they represent. Such as when a child learns the meaning of the word 'cat' or 'dog' or 'cow' he/she is able to relate the sound of cat or dog with her perception of cat or dog.

Concept Learning: concepts are learned on the basis of its dominant features or attributes. Concept formation takes place when the child is able to identify cat on the basis of its certain attributes which are different from cow or dog. Some concepts are learned through physical encounter of the object while others through concept assimilation process, for example, the child has the concepts like chair, table, etc. in her cognitive structure. The new concept 'furniture' can be assimilated

by relating the attributes of the new concept with already existing concepts. The new concept subsumes the concepts already existing in the cognitive structure.

Propositional Learning: A proposition refers to a combination of more than two concepts giving rise to a composite meaning. When a learner learns a combination of concepts or ideas having a composite meaning propositional learning takes place. For example ‘dog is an animal’ is a proposition combining two concepts ‘dog’ and ‘animal’. Both these concepts give rise to a composite meaning.

Principles of Ausubel’s Meaningful Reception Learning Theory can be applied to classroom setting in the following ways:

- 1) The most general ideas of a subject should be presented first and then progressively differentiated from the specific ideas. For example, while teaching the concept of furniture, the teacher should start with the concept of furniture and then go to the concepts ‘like ‘table’, ‘chair’, ‘sofa’, in terms of its detail and specificity.
- 2) Instructional materials should attempt to integrate new material with previously presented information through comparisons and cross-referencing of new and old ideas.
- 3) Teacher should incorporate advance organizers when teaching a new concept.
- 4) Teacher should use a number of examples and focus on both similarities and differences.
- 5) Teacher should discourage rote learning of materials that can be learned more meaningfully.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

3) Describe different stages of Piaget’s cognitive development.

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2.3.3 Constructivist Perspective

Constructivism is a theory which regards learning as an active process in which learners construct and internalise new concepts, ideas and knowledge based on past knowledge and experiences. Knowledge is constructed rather than received. The word *Constructivism* has come to serve as an umbrella term for diversified views. It is the label given to a set of theories about learning which fall between cognitive and humanistic views. It offers an explanation of the nature of knowledge and human learning focusing on learning as conceptual change (Driver and Oldham, 1986; Nersessian, 1989). It maintains that individuals create and construct their own understanding or knowledge through the interaction of what

they already know and believe; and the ideas, events and activities with which they come in contact. According to the constructivist perspective, learning is an active process of constructing knowledge instead of acquiring knowledge. Unlike the behaviourist perspective, instead of imitation or repetition, knowledge is acquired through the learner's active involvement and manipulation of contents, and instruction is a process of supporting knowledge construction rather than communicating knowledge.

Constructivism is, therefore, an epistemology of learning developed on the premise that reflection on experiences, while constructing their own understanding of the world, allows learners to formulate a more concrete meaning of subject matter. Each learner generates his/her own rules and mental models which are used to make sense of experiences. Knowledge, therefore, is not mechanically acquired but actively constructed within the constraints and offerings of learning environment. Consequently, the mechanistic view of learners as passive recipients of knowledge was replaced by the constructivist view of learners as active knowledge constructors. Therefore learning is not mere absorption of knowledge and learner is no longer controlled respondent to stimuli as in the behaviourist approach but is considered as '*already a scientist*' (Solomon, 1994. P.16) *who actively constructs learning while trying to make sense of the world through his own experiences, goals, curiosities, and beliefs.* Knowledge, according to constructivist, epistemology cannot be transferred intact from one individual to another and therefore, learning and teaching cannot be synonymous: we can teach, even well, without having students learning. *A basic premise of constructivism is that individuals live in their own world of personal and subjective experiences and build new knowledge on the basis of their previous experiences, rather than new knowledge being imposed from outside.* The role of teacher, therefore, undergoes a major transformation from the imparters of knowledge to facilitator of conditions, which help learner in the process of knowledge construction. You, as a constructivist teacher, have to consciously select activities and learning experiences for your students with which they are familiar and then try to take them towards more difficult and unknown concepts.

Types of Constructivism

There are three major classifications of constructivism like the trivial constructivism, radical constructivism, and social constructivism.

Trivial Constructivism (TC) considers that *knowledge is actively constructed by the learner, not passively received from the environment.* This perspective believes prior knowledge of learner as essential for him/her to facilitate the construction of new knowledge and emphasizes objectivity of knowledge.

Radical Constructivism (RC): The basic principle of RC is that any kind of knowledge is constructed rather than perceived through senses. Each individual constructs his/ her own reality. Two basic principles underlying radical constructivism include: i) knowledge is not passively received but actively built by the individual; and ii) the function of cognition is adaptive and serves the organisation of the experiential world, not the discovery of ontological reality. In other words reality is subjective filtered through the prism of individual experiences and sensory perception. Radical constructivist rejects the possibility of objective knowledge and believes that all knowledge depends on the cognitive structure of knower. Therefore subject and object are not independently existing phenomena but the construction of the learner.

Social Constructivism (SC): In contrast to the RC, SC emphasizes the role of culture and context in developing personal and shared interpretation of reality. It emerged largely from the work of Piaget, Vygotsky, Bruner and Bandura. Vygotsky, a Russian psychologist, laid the foundation of social constructivism by adopting a socio-cultural approach to cognitive development based on the assumption that action is mediated and cannot be separated from the social milieu in which it occurs. The social constructivist model emphasizes culture as the prime determinant of individual development.

Both radical and social constructivists believe that reality is constructed, but, according to social constructivism the reality exists in the social context and learning is a social process. Therefore the notion of reality, knowledge, and learning all are situated in the social context. It is based on the assumption that *reality* is constructed through human activity, reality cannot be discovered and it does not exist prior to its social invention. *Knowledge* is also a human product and is socially and culturally constructed. Individuals develop meaning through their interaction with each other and with the environment. Consequently according to social constructivists, *learning is a social process* and meaningful learning occurs when learners are engaged in social activities.

Social Constructivism of Vygotsky

Vygotsky shared many of Piaget's views about child development, but, he was more interested in social context of learning. The social constructivist model proposed by him emphasizes culture as the prime determinant of individual development. Learners are believed to be encultured into their learning community and learning is considered to be largely situation or context specific activity. Vygotsky suggests that every function in the child's cultural development occurs twice or on two levels: first it appears on the social level, and then on the individual or psychological level. Vygotsky focussed on the intersection between individual and society through his concept of Zone of Proximal Development (ZPD). *ZPD level has been defined as a distance between the actual developmental level as determined by independent problem solving and the level of potential development determined through problem solving under adult guidance or in collaboration with more capable peers*(Vygotsky,1978,p.85). During this interactive process, meanings are shared and information exchanged. By comparing their knowledge and understanding with others, students develop new understanding.

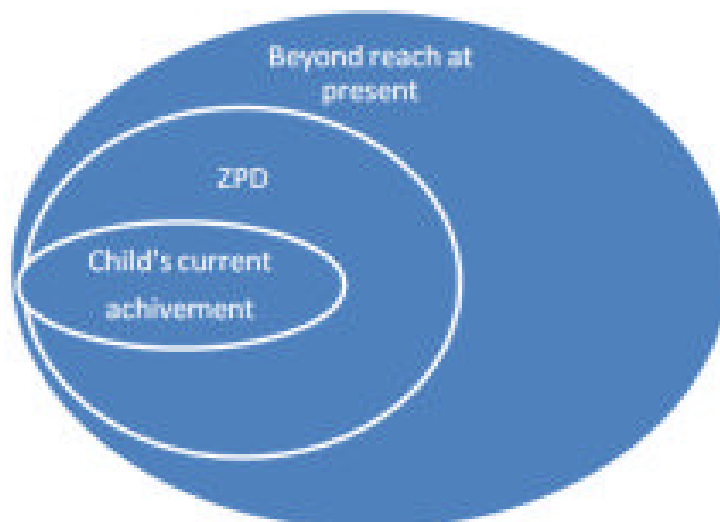


Fig 2.1: Zone of Proximal Development

The ZPD, therefore, indicates learner's readiness to learn by emphasizing upper level of competence. You can promote learning if they are aware of and understand the concept of Zone of Proximal development (ZPD) and how it is facilitated by certain approaches to teaching and assessment. Teachers, who can utilise ZPD to ascertain what students already know and are ready to learn and then organize structured learning experiences accordingly, can be more successful and effective. Vygotsky's constructivism suggests that learning environment should involve guided interactions that permit learners to reflect on inconsistencies and to change their conceptions through communication.

Language plays an important role in Vygotskian constructivism. Language is initially used as a means of communication between adult and child. Gradually it is internalised into a means of the child's own thinking and control of his/her own activity. Young children can often be observed talking to themselves. As they grow older they gradually speak less and less louder, and are able to differentiate between social speech for others and inner speech. According to Vygotsky, (1978) *the child begins to perceive the world not only through its eyes but also through its speech. And later it is not just seeing but acting that becomes informed by words.* Language provides the child with a new tool, opens up new opportunities for doing things, and organising information through the use of words as symbols. The key to understanding the role of language in mental development lies in dual nature of word meaning or language use called *discourse*. Each word contains two levels of meanings; one is the object or phenomenon, the word refers to in the objective reality, the other is the relationship of word with other words. Both the levels combine to give the word its social semiotic significance. The child learns by imitating the immediate social environment which is in turn influenced by the culture. The cultural context, therefore, acquires immense importance and makes learning contextual and culture specific and language is important for determining how the child will learn how to think because advanced modes of thought are transmitted to the child through words.

Now let us try to reflect on the teaching learning process of classroom. We will find that teachers utilize a variety of classroom practices that are based on all these ideas about learning. Contemporary learning theory recognizes that both experience and reflection play important role in the development of ideas and skills. As a teacher you will agree that, trial and error, reinforcement and practice are important in development of skills and so do cognitive intent, effort, reflection and problem solving. We also acknowledge the importance of developmental stages and recognize that development can also be encouraged by social interaction and structuring of experiences within the learner's zone of proximal development or readiness sphere. The role of culture, socio-emotional development and other influences on experiences also shape the learning process of students. Therefore, the teaching-learning strategy is determined by the level of cognitive development and maturity of learners, their previous experiences, and the socio-cultural context.

Activity 2

Based on the discussion on cognitive and constructivist learning theories, you can reflect on their implications for teachers in classroom situation and write here.

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2.3.4 Socio-Cultural Perspective

The socio-cultural context of the child is crucial as everything he/she learns takes place in particular social context. Culture comprises the pattern of values, beliefs, and behaviours common to a particular group of people. Child learns a lot in social environment through two processes. These are: a) Enculturation and b) Acculturation. Let us discuss these processes.

a) **Enculturation:**

A child learns the fundamentals of his/her culture initially through his/her interaction with parents, siblings, peer group, community and then with school and teachers. This is known as **enculturation**. We may define enculturation as the process by which individuals acquire knowledge, skills, attitude and values that enable them to become functioning members of a particular society. It may be known as both conscious and unconscious conditioning processes that develop competence in individual to internalize his/ her own culture, its norms of behavior, traditions and values. You consciously teach your small child to greet a guest in a particular manner which is internalized after repeated conscious efforts and the child becomes conditioned and automatically greets a person whenever he/she meets him/her. You can find out a number of such examples that indicate towards the enculturation process of children. While socialization in home and society takes place through informal ways, school is the place for formal education and moulding the child according to the socio-political orientation of a particular society. Children develop the values of sharing, caring, cooperation, friendship, equity and equality, sympathy and tolerance in family and school through interaction with peers, elders, and teachers, etc. Children learn to control their emotions, show respect to national symbol and national anthem, cooperate with others, etc. because of this enculturation process. Children are made aware of their own culture, traditions, folk tales, folklores, and social practices through enculturation process.

b) **Acculturation:**

Whereas enculturation is the adoption of appropriate behavior of one's own culture, acculturation is the learning of one's host culture. It is the process of adaptation to other culture's norms and traditions without compromising one's own cultural values and norms. Take one concrete example in school, children from various cultural groups and religious beliefs are given admission. They greet the teacher generally by saying 'good morning' while at their home and particular community they may be following various other methods of greeting elders. Therefore they learn the common norm of greeting in school while not compromising with their own particular cultural identity.

Immigrants, who move from one culture to another culture, make that culture their new home. It helps in adjustment of the person in new culture. The child coming from tribal area slowly learns adapts to the urban culture. In other words, enculturation and acculturation are two processes of learning in socio-cultural settings while enculturation is the first process and acculturation is the second process of learning in socio-cultural settings.

The first process of learning involves acquiring one's mother tongue, adopting traditional dress, customs, food, music, and dance, etc. while second process

involves learning about others customs, traditions and language, etc. Socialization includes both the processes of enculturation and acculturation. It is a learning process that begins shortly after birth. It denotes the process through which the individual acquires current societal norms and structures thus becoming the part of society to which she/ he belongs and also learns to adjust to different cultures and traditions. From birth and throughout our lives, our interactions with others shape our understanding of the world. Learning occurs as children play with each others, talk with their parents and interact with teachers. The process of socialization and social interaction develop languages which support thinking and provide feedback also. The socio- cultural ethos and social interactions form the basis of understanding of the child. As a result, teachers are constantly called upon to face the challenges of not only added work in content areas in their curriculum, but also a number of problems related to the cultural diversity and socio-emotional adjustments of learners.

The classroom teacher plays a key role in shaping these social interactions when she/he assesses students' current understanding or prior knowledge and creates situation that allows them to grow further. As a teacher, you should be well aware of the cultural diversity of learners and integrate the cultural contexts and examples in teaching-learning process. In your classroom transactions you may use examples of local contexts rather than examples from outside the cultural context of students. Children learn in a variety of ways-through experience, making and doing things, experimentation, reading, discussion, asking questions, listening, thinking and reflecting, etc. both individually and with others. Therefore, you have to evolve a variety of approaches using local resources to ensure that learning takes place. You may engage children in collaborative learning activities involving thinking, listening, speaking, planning and executing the work that may provide opportunity to students to work in teams and learn from each other. Peer tutoring, and project work in small groups provide ample opportunity to develop social cohesion and understanding about each others. You can use the example of local history and try to connect it with regional and national history. Children should be helped to develop critical understanding of their social reality and social problems such as child marriage, deprivation of certain sections of society, local traditions and customs impeding equal opportunity of boys and girls and various dogmas prevailing in the society.

2.3.5 Economic and Political Perspective

Education is considered as an instrument for wider socio-economic reforms and therefore government frames educational policies and takes decisions on the education system from time to time. For instance, the commitment towards Universalisation of Elementary Education (UEE) has been addressed through the Sarva Shiksha Abhiyan (SSA) scheme of the central government. The central government has amended the constitution from time to time to implement its constitutional commitment for UEE such as the 73rd and 74th Constitutional Amendment related to Panchayati Raj Institution that helped in decentralization of education, and 86th Constitutional Amendment making education a fundamental right of each and every child of the country, that eventually culminated in RTE Act of 2009. State governments also frame education policies for their respective states which has a bearing on the education system.

RTE Act 2009, for example, recommends no detention policy, admission to grade that is age appropriate, and bridge course for such child, inclusive education, special coaching to students in school premises, no discrimination on any ground, no corporal punishment, and continuous and comprehensive evaluation, ensuring the quality of education, etc. Each state also has its own policy for achieving state specific educational objectives. All these recommendations provide guidelines for teaching-learning processes in the classroom.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

4) Distinguish between and enculturation acculturation.

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2.4 LET US SUM UP

In this unit, we have learnt about various learning theories that have implications for teaching learning process in the classroom and which determines the role of teacher. From the behaviourist perspective, teacher plays a more dominant role in teaching-learning process as behaviourism emphasizes that learning takes place due to presentation of a series of discrete stimuli and resulting responses. The main emphasis of early cognitive theories was that learning task is perceived in a holistic perspective instead of atomistic perspective. So it gives importance to perception of the whole, and not the collective association of ideas given by behaviourists. Constructivism, on the other, emphasized the active role of learner in building understanding and making sense of information. We have also discussed that the policies and socio-cultural context of learners are also crucial and as a teacher you have to keep in mind these policies and social- cultural context while teaching. In the final analysis different views of learning can be used together to create productive and eclectic learning environment.

2.5 UNIT END ACTIVITY

- 1) Interview a few colleagues in your school and find out from them how they understand the concept of learning.

2.6 POINTS FOR DISCUSSION

- 1) Do you think that student learning can be viewed from one perspective? Justify your answer.
- 2) Why is understanding of learning from different perspectives necessary for an elementary school teacher?

2.7 SUGGESTED READINGS AND REFERENCES

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2.8 ANSWERS TO CHECK YOUR PROGRESS

- 1) Behaviourists consider learning as permanent change in behaviour due to experience while cognitivists define it as acquisition of knowledge, comprehension and skills.
- 2) Negative reinforcement ensures learning by removing the disturbing condition which inhibits learning process.
- 3) There are four stages of Piaget's cognitive development. Sensory motor (0-2 yrs), Preoperational stage (2-7 yrs), concrete operational stage (7-11 yrs) & formal operational stage (11 yrs and above).
- 4) Acculturation is learning one's host culture while enculturation is adoption of norms and behaviour of one's own culture.

UNIT 3 FACTORS AFFECTING LEARNING

Structure

- 3.1 Introduction
- 3.2 Objectives
- 3.3 Identification and Classification of Major Factors Influencing Learning
- 3.4 Psychological Factors Influencing Learning
 - 3.4.1 Intelligence
 - 3.4.2 Motivation
 - 3.4.3 Maturation for Readiness to Learn
 - 3.4.4 Emotions
 - 3.4.5 Interests
 - 3.4.6 Attitudes
 - 3.4.7 Self-Concept
 - 3.4.8 Learning Styles
- 3.5 Socio-Cultural (Environmental) Factors Influencing Learning
- 3.6 School-related Factors Influencing Learning
- 3.7 Teaching-Learning Process related Factors Influencing Learning
 - 3.7.1 Methods of Learning
 - 3.7.2 Influence of Media on Learning
- 3.8 Let Us Sum Up
- 3.9 Unit End Activities
- 3.10 Points for Discussion
- 3.11 Suggested Readings and References
- 3.12 Answers to Check Your Progress

3.1 INTRODUCTION

In Unit 2, we discussed different perspectives of learning and learnt that there are a number of theories which throw light on the process of learning and different theorists have different propositions on how we learn. Human learning is influenced by the family, the community, the school and the societal structure in which the child is born and brought up. Apart from this, the child's own psychological characteristics have a strong influence on his/ her ability to learn as well as how he/ she learns. In this unit, we discuss factors that have direct or indirect influences on students' learning at the elementary level.

3.2 OBJECTIVES

After going through this unit, you should be able to:

- list down major factors influencing learning;
- classify major factors affecting learning;

- discuss psychological factors influencing learning;
- explain various socio-cultural factors influencing learning;
- discuss different school-related factors influencing learning;
- describe various methods of learning that affect learning; and
- explain the influence of media on learning.

3.3 IDENTIFICATION AND CLASSIFICATION OF MAJOR FACTORS INFLUENCING LEARNING

Let us try to understand some of the major factors influencing learning. Certain factors are innate or personal to the individual engaged in the process of learning that are specifically unique to him/ her. These factors include intelligence, motivation, emotions, interests, attitudes, beliefs, values, learning styles etc. There are certain other factors which belong to the environment or the surroundings with which the individual continuously interacts. Such factors include family, peer-group, neighbourhood, community, school-related factors etc. All these personal and environmental factors play a crucial role in influencing student learning.

We classify these factors into different categories on the basis of their nature. For this, let us, first of all, examine the following examples:

- Gaurav is fifteen years old and is a good student. But, he is not able to concentrate on his class as well as home assignments and consequently, has been scoring very low marks. Sources revealed that his peer-group or friend circle outside the school is not good and he remains mostly indulged in unwanted activities with his peer group.
- Visharath and Vrishank are classmates. Visharath can solve an algebraic sum without the help of calculator in a very short time. On the other hand, Vrishank takes a long time to solve a simple algebraic sum.
- Ahmed wants to be a member of Indian cricket team. For this, he makes every effort and spends a lot of time on nets. Although he does not get enough support from his family members, he maintains a good rapport with his sports teacher and also he rarely misses to watch any cricket match.
- Kiran is beautiful, fair and tall. She wants to adopt modeling as her career or wants to be an air hostess. She nurtures her dream. However, she keeps her dream as secret because she belongs to an orthodox family where girls are not permitted to work outside their home. When she talks about her dream with any family member, she is firmly told that she can only complete her studies upto school level and mostly can attend tuition classes.
- Mary and Margaret are sisters. Mary is very good at art and drawing-related works and can draw sketches about things she sees. Margaret has a passion for music. She knows most songs and can sing them even if she has heard them only once. Both of them spend hours together pursuing their respective interest areas.

These examples clearly indicate that learning is mediated by a number of factors, both personal as well as environmental. So, the notion that, “everybody learns in

accordance with his/her unique, individualized blend of personal and environmental factors” can be considered to be true.

For example, in case of Gaurav, who is performing poorly in his academic tasks, the peer group is the key factor influencing his achievement. In the similar fashion, personal innate characteristics of Visharh and Vrishank are acting as determining factors in terms of their performance in algebra. In case of Ahmed and Kiran, home environment and family culture and values of the respective individual are acting as influencing forces in selection of their professional career respectively. As far as Mary and Margaret are concerned, their special interests and talent in arts and music respectively, seem to guide their activities.

Thus, in all the examples, you can find evidences of both personal and environmental factors influencing the process of learning. On the basis of this discussion, we may define learning as a function of the interaction of personal (psychological) and environmental factors and can be mathematically represented as;

$$L = f(EF \times PF)$$

L = Learning; f = Function; EF = Environmental Factors; PF = Personal Factors.

Personal factors (psychological factors) are the intra or within individual factors like intelligence, motivation, interests, attitudes, etc. which predispose an individual towards learning, as in the cases of Mary and Margaret as well as Visharh and Vrishank. Environmental factors, on the other hand, are those contextual factors, which highlight the role of the environment in learning, such as the **socio-emotional, societal, cultural and other school-related factors**. Although these factors represent two different categories, they operate in a common system. The learner and the learning process can only be completely understood with reference to the interaction of both personal and environmental factors. This may be diagrammatically represented in Figure 3.1.

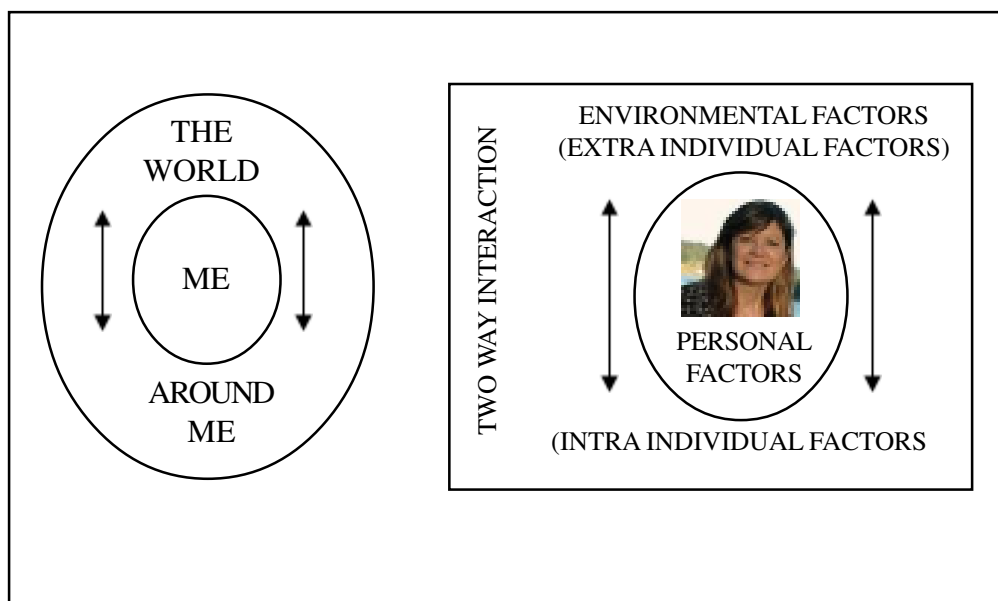


Figure 3.1: Factors affecting Learning

Source: IGNOU (2007)

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

- 1) Classify and list down the major factors that influence learning among the students.

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3.4 PSYCHOLOGICAL FACTORS INFLUENCING LEARNING

Psychological factors are unique or specific to the individuals engaged in the process of learning. A thorough knowledge and understanding of these factors is very essential for the teachers and parents in providing and guiding learning among the children. A detailed discussion of the sub-factors falling in the domain of psychological factors that influence learning is provided here:

3.4.1 Intelligence

Research studies revealed that intelligence is positively related to learning ability of the children. You must have seen wide variations across individuals and cultures as to what actually constitutes intelligence. Let us take a closer look at what this statement means by engaging in the following analytical task:

- Vandana always comes first in class.
- Iqbal has the ability to memorize dates and years of historical events in a chronological order.
- Sanjay is very good in dancing.
- Elizabeth can produce sound of any bird or animal.
- Vishal is a good table-tennis player.

Looking at the above profiles of five students, could you identify who is the most intelligent student? Perhaps, you cannot. This is because each of the five students has their distinctive talent in their own area or field. This is indicative of the fact that you cannot define 'intelligence' with a single context. Probably, there are as many definitions of intelligence as there are experts who study it. Broadly, we can define intelligence as the ability to learn about, learn from, understand, and interact with one's environment. This general ability consists of a number of specific abilities, which include:

- adaptability to a new environment or to changes in the current environment;
- capacity for knowledge and the ability to acquire it;
- capacity for reason and abstract thought and to comprehend relationships;

- ability to evaluate and judge; and
- capacity for original and productive thought.

Besides this, intelligence as a concept has been understood in different ways by different psychologists and has, therefore, a wide variety of definitions. These are presented in Box-1.

Box 1: Definitions of Intelligence

Meaning of intelligence as cited by different authors.	
Alfred Binet (1916)	Judgment, otherwise called “good sense,” “practical sense”, “initiative,” the faculty of adapting one’s self to circumstances auto-critique.
David Wechsler (1944)	The aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment.
Lloyd Humphreys (1979)	The resultant of the process of acquiring, storing in memory, retrieving, combining, comparing, and using in new contexts information and conceptual skills.
Cyril Burt (1955)	Innate general cognitive ability.
Howard Gardner (1993)	A human intellectual competence must entail a set of skills of problem solving – enabling the individual to resolve genuine problems or difficulties that he or she encounters and, when appropriate, to create an effective product – and must also entail the potential for finding or creating problems – and thereby laying the groundwork for the acquisition of new knowledge.
Linda Gottfredson (1998)	The ability to deal with cognitive complexity.
Sternberg & Salter (1982)	Goal-directed adaptive behavior.
Reuven Feuerstein (1990)	The unique propensity of human beings to change or modify the structure of their cognitive functioning to adapt to the changing demands of a life situation.

For understanding the nature and meaning of intelligence, we have to conceptualize the following viewpoints regarding intelligence:

The approach to understand intelligence with most supporters and published research over the longest period of time is based on psychometric testing. It is also by far the most widely used strategy in practical settings. There are also psychometric tests that are not intended to measure intelligence itself but some closely related construct such as scholastic aptitude. Intelligence tests are widely used in educational, business and military settings due to their efficacy in predicting behaviour. Individuals with high intelligence quotients (IQ) are associated with more years of education, jobs with higher status and higher income. Intelligence is significantly correlated with successful training and performance outcomes. Recent IQ tests have been greatly influenced by the

Cattell-Horn-Carroll theory. It is argued to reflect much of what is known about intelligence from research. A hierarchy of factors is used to have a clear picture about intelligence. Out of these factors, the general intelligence factor 'g' is at the top. Under it, there are 10 broad abilities that in turn are subdivided into 70 narrow abilities. The broad abilities are: fluid intelligence (Gf), crystallized intelligence (Gc), quantitative reasoning (Gq), reading and writing ability (Grw), short-term memory (Gsm), long-term storage and retrieval (Glr), visual processing (Gv), auditory processing (Ga), processing speed (Gs) and decision/ reaction time/ speed (Gt).

Robert Sternberg proposed the triarchic theory of intelligence to provide a more comprehensive description of intellectual competence than traditional differential or cognitive theories of human ability. The triarchic theory describes three fundamental aspects of intelligence: **Analytic intelligence, Creative intelligence and Practical intelligence**. Analytic intelligence comprises the mental processes through which intelligence is expressed. Creative intelligence is necessary when an individual is confronted with a challenge that is nearly, but not entirely, novel or when an individual is engaged in automatizing the performance of a task. Practical intelligence is required in a socio-cultural milieu and involves adaptation to, selection of, and shaping of the environment to fit into in the context. The triarchic theory does not argue against the validity of a general intelligence factor; instead, the theory posits that general intelligence is part of analytic intelligence, and only by considering all three aspects of intelligence can the full range of intellectual functioning be fully understood. More recently, the triarchic theory has been updated and renamed the Theory of Successful Intelligence by Sternberg. Intelligence is defined as an individual's assessment of success in life by the individual's own (idiographic) standards and within the individual's socio-cultural context. Success is achieved by using combinations of analytical, creative and practical intelligence. The three aspects of intelligence are referred to as processing skills. The processing skills are applied to the pursuit of success through what were the three elements of practical intelligence: adapting to, shaping of, and selecting of one's environments. The mechanisms that employ the processing skills to achieve success include utilizing one's strengths and compensating or correcting for one's weaknesses.

The most dominant contemporary view in intelligence which has a marked influence on educational practice is the one proposed by Howard Gardener. He has advanced a theory of multiple intelligence having eight distinct abilities. Each is a separate system of functioning, although the various systems can interact to produce overall intelligent performance. The eight areas of intelligence are:

- Linguistic intelligence
- Logical – mathematical intelligence
- Spatial intelligence
- Musical intelligence
- Bodily – kinesthetic intelligence
- Interpersonal intelligence
- Intrapersonal intelligence
- Naturalist intelligence

The intelligence on which one is high in terms of manifestation will thus determine what one learns, how well one learns, and also influence the various ways in which one seeks engagement in the learning task. Thus, irrespective of how we define intelligence, in relating it to learning, there is no doubt that it affects what, when and how we learn. Further, in operational terms, it definitely is a capacity or ability for problem solving, thinking, reasoning, relating to others, dealing with emotions, developing interests, sense of right and wrong and living in consonance with our environment. To sum up, it may be said that intelligence is positively interrelated with learning capacity of the students and students high on intelligence are supposed to learn better and more as compared to their counterparts with low on intelligence.

3.4.2 Motivation

In order to study the effect of motivation on learning among the students, let us consider following examples:

There is a boy Jatin who gets bruises and cuts and quite often falling down while learning to ride a bicycle, but he tries to improve his performance by continued practice. Now, could you tell what makes Jatin behave in such a manner? Well, you may say that he is motivated to do so.

Consider another example of a class and try to explain what is happening.

Mr. Dey is the class teacher of VIII A. He teaches History. For some reason, this year, he has really struggled with his class. He is very upset about his students seeming so disinterested in studying History. Whenever he tries to make his lesson interesting by giving projects and assignments, his students start protesting. “Sir, this is too long, too hard, too much; we can’t understand”. “Please don’t give us extra work.” Neither parental advice nor offering incentives seem to work. The “we can’t” attitude persists among them. Some good students who always work hard also begun to behave like the rest of the class. Mr. Dey decided to get to the bottom of the problem and change his students. Let us try to help him. We can begin our analysis by asking three fundamental questions:

- *Do his students lack motivation?*
- *Why are they so resistant to learn History?*
- *What can be done to change the attitude of the class?*

To be able to answer these questions meaningfully, we have to know the difficulties and problems that students face, the level of their involvement, interest in learning history, their readiness to give up history and their feelings during this class. The answer to all such questions as to the why and how of the behaviour of the students lies in the key word ‘Motivation’.

Motivation may be regarded as something which prompts, compels and energizes an individual to act or behave in a particular manner, at a particular time for attaining some specific goals or purposes. Motivation may also be formally defined as an internal state that arouses, directs and maintains behaviour.

You can think of motivation as an internal energy or a mental force that drives a person to achieve a goal. Motivation is important in many contexts: school, home and the world at large. The key reason why motivation is an important concept

in education is because of the well documented relationship between motivation and academic achievement and performance. For example, students, who are motivated in school tend to achieve higher, they stay in school longer, get involved in all the class tasks, learn more and in general perform better on tests. Thus, as in the case of Mr. Dey, teachers could do well if they foster motivation for learning before they can expect students to benefit from teaching.

Motivation plays a pivotal role in learning and it is an academic reality. In fact it serves to activate, guide and maintain learning. In a sense, motivation is an index of the eagerness of an individual to learn. Adequate motivation not only sets the activities in motion which results in learning, but also sustains and directs these activities. It is, thus, an indispensable factor in promoting learning, as it energizes and accelerates the process and evokes a very positive response from the learner. You would have observed that some students learn the same task or subject matter more efficiently than others, because they find it more rewarding and interesting. There can, thus, be a great deal of variations in ‘what motivates’, ‘how much it motivates’ and ‘what impact it has on the learner’. These variations may be attributed to differences in levels and types of motivation. For instance for some individuals, their needs determine what their motivation will be. For some others, the incentives available to accomplish a task become the most important consideration. For some others, the joy of engaging in a particular activity generates a drive. Motivation must be understood as a construct which encompasses the concepts of needs, drives and incentives. It seems to be a synthesis of all of them. Let us understand this with the help of an example:

Sudikshya is highly motivated, when it comes to art. We can reasonably draw this conclusion based on her close attention in class, her eagerness to draw whenever she can, and her career goal. Motivation is something that energizes, directs, and sustains behaviour; it gets students moving, leads them in a particular direction, and keeps them going. Virtually all students are motivated in one way or another. One student may be keenly interested in classroom subject matter and seek out challenging course work, participate actively in class discussions, and earn high marks on assigned projects. Another student may be more concerned with the social side of school, interacting frequently with classmates, attending extra-curricular activities almost every day, and perhaps running for student council. Still another may be focused on athletics, excelling in physical education classes, playing or watching sports most afternoons. Students with an undetected learning disability, a shy temperament, or a seemingly uncoordinated body – may be de-motivated to engage in academics, social situations, or athletic activities. When Sudikshya comes to school each day, she brings her strong interest in art with her. But motivation is not necessarily something that learners bring to school; it can also arise from environmental conditions at school. When we talk about how the environment can enhance motivation to learn particular things or behave in particular ways, we are talking about situated motivation. In the next paragraphs, we’ll find that as teachers, we can do many things to motivate students to learn and behave in ways that promote their long-term success and productivity.

- i) Motivation directs behaviour toward particular goals.
- ii) Motivation leads to increased effort and energy.
- iii) Motivation increases initiation of and persistence in activities.
- iv) Motivation affects cognitive processes.

- v) Motivation determines which consequences are reinforcing and punishing.
- vi) Motivation often enhances performance.

Not all forms of motivation have exactly the same effects on human learning and performance. Consider these two elementary students in writing class:

Siddharth doesn't enjoy writing and is taking the class for only one reason: getting an A or B grade in the class will help him earn a scholarship at State Board examination. Another student, Mahesh always likes to write. The class will help him get a scholarship at State Board examination, but in addition, Mahesh truly wants to become better in writing. He sees its usefulness for his future profession as a journalist. Besides, he is learning many new techniques for making what he writes more vivid and engaging.

Siddharth exhibits **extrinsic motivation**. He is motivated by factors external to himself and unrelated to the task he is performing. Learners who are extrinsically motivated may want good grades, money, or recognition that particular activities and accomplishments bring. Essentially, they are motivated to perform a task as a means to an end, not as an end in itself. In contrast, Mahesh exhibits **intrinsic motivation**. He is motivated by factors within himself and the task that he is performing. Learners who are intrinsically motivated engage in an activity because it gives them pleasure, helps them to develop a skill that they think important, or seems to be ethically and morally right in thing that they do. Some learners with high levels of intrinsic motivation become so absorbed in and focused on an activity that they lose track of time and completely ignore other tasks – a phenomenon known as flow.

Learners are most likely to show the beneficial effects of motivation when they are intrinsically motivated to engage themselves in classroom activities. Intrinsically motivated learners tackle assigned tasks willingly and are eager to learn classroom material, more likely to process information in effective ways (e.g., by engaging in meaningful learning), and achieve at high level. In contrast, extrinsically motivated learners may have to be enticed or prodded, may process information only superficially, and are often interested in performing only easy task and meeting minimal classroom requirements.

In the early elementary classes, students are often eager and excited to learn new things at school. But sometime between class 3 and 9, their intrinsic motivation to learn and master school subject matter declines. This decline is probably the result of several factors. As students get older, they are increasingly reminded of the importance of good grades (extrinsic motives) for promotion, graduation, and college admission, causing them to focus their efforts on earning high grade point averages. Furthermore, they become more cognitively able to set and strive for long-term goals, and they begin to evaluate school subjects in terms of their relevance to such goals, rather than in terms of any intrinsic appeal. In addition, students may grow increasingly impatient with the overly structured, repetitive, and boring activities that they often encounter at school.

Extrinsic motivation is not necessarily a bad thing; however, often **learners are simultaneously motivated by both intrinsic and extrinsic factors**. For example, although Mahesh enjoys her writing course, he also knows that a good grade will help him get a scholarship at state board examination. Furthermore, good

grades and other external rewards for high achievement may confirm for Mahesh that he is mastering school subject matter. And over the course of time, extrinsic motivation may gradually move inward.

Thus, we see that motivation is a very crucial factor that affects learning among students. So, it is necessary that teachers should motivate their students at every step.

3.4.3 Maturation for Readiness to Learn

A learner's readiness and will power to learn is a great deciding factor of his/her results in learning. It is presumed that if an individual has will to learn, then automatically he/she will find ways for effective learning. In other words, the learner should be mature enough to learn a particular skill or task. This means that there is an optimal or most appropriate time for each individual to learn a specific skill or a concept with ease and efficiency. This appropriate time comes when one's physical, neural and intellectual aspects of development have advanced enough to enable one to perceive the problem and solve it with relative ease and comfort. For instance, four month old child cannot walk since it lacks the physical maturation or level of development required of walking. Similarly, it is impossible for five years old to comment on democracy or socialism as he/she is not 'ready' or cognitively adept at understanding these concepts. Maturation can best be interpreted as relatively permanent change in an individual – be it cognitive, emotional or physical, that occurs as a result of biological ageing, regardless of personal experience. Maturation is pre-programmed and occurs regardless of interactions a child has with the environment. Most expert teachers in schools know that no matter how hard they work or how good they are, they cannot force a student to think or do what he/she is not biologically ready to do. Thus, cognitive 'coming of age', or maturation is another specific aspect of 'readiness to learn'. It implies that a child should have the requisite level of cognitive skills necessary for solving a problem or accomplishing a task set before her.

It is also important for you to understand that there are large individual differences in maturation. Some children, for instance, start walking at nine months, while others do the same at the age of two years. Some children speak a language quite competently at three years, while others may do that as late as five years. Maturation has to be thus understood as a natural process of unfolding of the development stages, resulting in functionally preparing an individual to acquire mastery over his/her environment.

It must have become clear to you that any attempt to teach things before an adequate level of readiness is acquired by the child is futile. This also serves to explain why non-performance on the part of learners or their inability to grasp a concept can be attributed to lack of adequate maturation and readiness to learn.

Since maturation determines the readiness for learning, it is critical for curriculum planners and teachers to take note of this. It enables them to decide what to teach, how to teach, when to teach and correspondingly be guide on what to expect from their learners. You will now be able to appreciate why very young children should not be encouraged to write. Similarly, if teenagers are undergoing mood swings, it is because of their developmental pattern – they are not pretending moods or deliberately misbehaving.

3.4.4 Emotions

It is a well accepted fact that our emotions play quite a significant role in guiding and directing our behaviour. Many times, they seem to dominate us in such a way that we have no solution other than behaving as they want us to. Emotions are the feelings that color our lives and allow us to experience all of the joys and sorrows of life. If a person has no emotions in him, then he becomes crippled in terms of living his/her life in a normal manner. Thus, emotions play a pivotal role in providing our behaviour a particular direction and thereby helps in shaping our personality. Emotions can thus be understood as an agitated or excited state of our mind and body. According to Crow and Crow (1973), “emotion is an affective experience that accompanies generalized linear adjustment to mental and physiological stirred-up states in the individual that shows itself in his/her overt behaviour.” Different psychologists describe emotions as some sort of feelings or affective experiences which are characterized by some physiological changes that generally lead them to perform some or the other types of behavioural acts. The development of emotions in human beings is largely influenced by the process of maturation and learning. Primarily, it has been shown that emotions originate in the brain, specifically in the limbic system. The limbic system is a small structure located in the middle of the brain between the lower center or brainstem and the higher center or cortex. The brainstem controls alertness and arousal and sends sensory messages to the cortex via the limbic system. Much of our thinking and learning takes place in the cortex and our limbic system interprets and directs emotions and behaviour. Thus, it can be said that both emotions and learning occur in the brain. Learning means acquiring knowledge or skills and it requires thinking. Our thinking influences our feelings, and further influences how we think.

In conclusion, we can infer that the connections between emotions and learning are bi-directional and complex. When we think about a happy incident, our mood improves. When we think about an angry incident, we are likely to feel angry. Also, being in a happy mood makes us think about happy thoughts; being in a sad mood brings sad and negative memories and images to mind. Hence, we may say that emotions can affect learning, in both positive and negative ways. When a learner experiences positive emotions, the learning process can be enhanced. When a learner experiences negative emotions, the learning process can be disabled. The diagram below represents a continuum of emotions ranging from positive and their effect on learning. The emotions listed on the continuum can either affect learning in a positive (+) or negative (-) way.

3.4.5 Interests

Interests are actually deep rooted constructs and are determined by the need structure of an individual. An individual with strong social needs such as belongingness, affiliation and recognition will direct all his/ her energies into activities which enable him/her to fulfill these needs such as meeting people, going to clubs, associations, parties, meetings, etc. In theoretical terms, an interest may be defined as a learnt or acquired motive stemming from some inherent needs of the individual which drive him/her to act in a way that will sustain or satisfy his/her inner need structure. This generation of interest can be explained with the help of the following flow diagram:

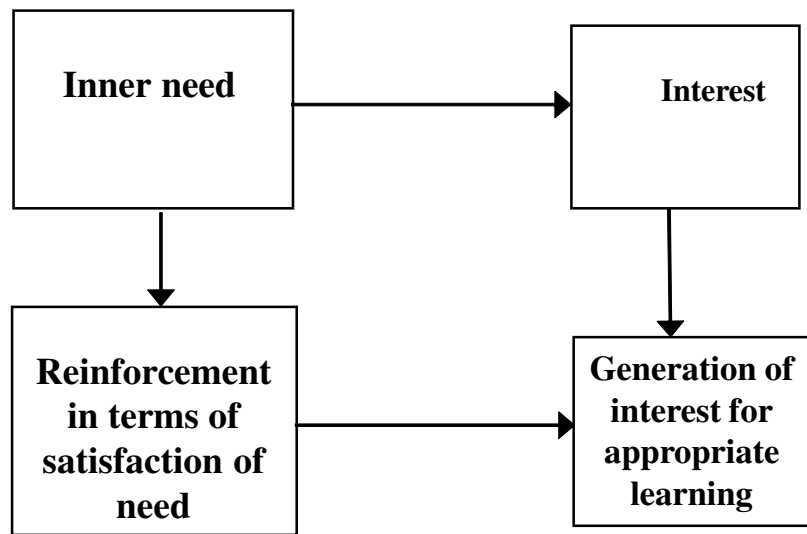


Fig. 3.2: Generation of Interest

Individuals differ a great deal in their patterns of interests because their need structures vary. For some persons, social and emotional needs become the guiding forces, for others, aesthetic or higher cognitive needs may be the preponderant factors. Age variations are also visible. Young children have a need for activity, play, adventure etc. and thus they learn much better through a play way approach. This arouses their interest in studies and helps to sustain their involvement in work. For adolescents and older learners, the needs for affiliation and group belongingness are very high and thus they always show an interest in recreational group activities like parties, picnics, social outings, etc. Interests are, thus, determined by both age related and human needs factors. They influence not only what one learns best, but also serve to explain why learning becomes inadequate. You often hear teachers complaining to parents at the Parent Teacher Meetings that their children can do very well in studies, provided they take interest in them. You may have also heard students saying “Hindi is so boring”; “I just can’t do physics – its subject matter doesn’t interest me” or “why should I go for the cricket match when I am not interested in cricket!” Interest is one of the most important factors which mediates learning and which motivates learners to act. Without interest, as is evident from the examples cited above, there can be no learning. An interest is not the same as preference for some object, event or behaviour over others and which provides engagement and joy and is undertaken voluntarily.

3.4.6 Attitudes

We have many likes and dislikes and beliefs and opinions which predispose us to behave in certain ways. For instance, we might think that studying science at the senior secondary stage is too difficult, or we might think that living in rural India will mean following traditional styles of dressing and behaving etc. All these are preconceived ideas and notions which exist in our psyche and may be termed as our attitudes. Attitudes are born out of the process of socialization and usually have a knowledge and feelings component. We have attitudes towards objects, events and persons. Our attitudes may be positive, negative or neutral. For instance, if we are inclined towards reading books, playing cricket, good health fitness etc, we will have a positive attitude towards books, games, going for morning walks, gymnasiums etc. However, if we disapprove of how the younger generation dresses and behave in urban areas, or about contemporary

cinema, our attitude towards them will be negative. There are some things which we are indifferent about – our attitude towards them is usually neutral. Why the direction of our attitude is important is, because it influences what we learn willingly and with enthusiasm and what we will be unwilling to learn and do, or simply avoid. Thus the positive or negative predisposition within a person has important motivational components. When students have a positive attitude towards the school, not only does it imply that they will like school, but they are likely to endeavour to do well, to be liked by the teachers and will conform to the culture, goals and expectations of the school.

Very closely related to the concept of attitude are the constructs of prejudice and stereotype. Both of these usually influence the learning process. Prejudice may be understood as a negative attitude towards an object or event, while stereotypes represent a mind set, or expectancy, or a readiness to react in a certain way to a stimulus situation. Both prejudice and stereotypes are learnt attitudes, resulting from cultural conditioning. They assume special significance in learning since they greatly influence the direction, intensity, seriousness and commitment with which one learns or engages in an activity. It is very difficult to unlearn prejudices and stereotypes.

3.4.7 Self-Concept

In the context of learning, the ‘self concept’ of an individual assumes considerable importance since it represents what an individual feels about himself/herself and his abilities to perform and achieve. Self concept is a broader term which includes the sub-categories of self-image, self-esteem and self-efficacy. Let us try to understand all the three since these have a bearing on learning. Self image refers to one’s own perceptions about oneself – what are one’s strengths and capabilities and what are one’s weaknesses or limitations. It is usually based on the self-analysis or energies in the course of one’s real life experiences. You must have heard many students say “I’m good at maths or art or english and simply awful at geography or science”. This is a judgment they make about themselves after engaging with these subjects over a period of time. It assumes importance as the student who feels that, she/he is good at maths or english will learn these subjects with great interest, energy and enthusiasm, unlike subjects which she/he finds him/her weak. This holds true for all other activities as well. Those students who feel that they are weak at sports or art or creative work, will try to avoid these activities and will take much more time and effort to learn them. Thus self-image influences the direction and intensity of our learning. Very closely related to the concept of self-image, is self-esteem. Self esteem refers to the value a person places on himself or herself. It is the ideas one has about his/her attributes and abilities. These ideas are not only based on personal experience and self-analysis but are located within the domain of how one perceives one’s acceptance and recognition by others. Self-esteem is thus a measured component of self-concept. It is almost like an evaluation of oneself. Let us try to understand self-esteem by the following illustration:

Bharti has been representing her school in the quiz team for the last four years. Ever since she joined the team, the school has been on a winning spree. The teachers and principal hold her contribution in high esteem. This has given her a new identity and very positive feelings about herself and her capability. Bharti has a very positive self-concept based on a positive self-image and positive self-

esteem. She is always enthusiastic about quizzes, reading, learning more, and knowing more. Her academic performance also reflects this. She is ready to learn new things and invest any amount of time and energy in preparation since these help her to feel good about herself.

This case clearly illustrates that not only do our own judgments of ourselves affect our self-esteem, but also other people's judgments about us affect our self-esteem. Self-image and self-esteem are very closely related to the concept of self-efficacy. Self-efficacy refers to a person's belief in his/her ability to get things done. Self-efficacy addresses questions like – “Will I succeed or fail?” “Will I be liked or laughed at?” We usually imagine future consequences based on past experiences and our observations on others. These predictions are affected by our self-efficacy or beliefs about our personal competence in a given area. People's expectations of self-efficacy can derive from a number of different sources: direct experience, interpretations of the experiences of others, what people tell them they are able to do and others assessment of their motivational and emotional state. In general, if someone has a higher degree of self-efficacy, she or he is more likely to learn and better attain the desired outcome. In schools and colleges you must have observed that student's level of self-efficacy can lead to self-fulfilling prophecies. When students believe they are able to do something, they are more likely to expend the effort and resources in doing it. With this they achieve what they had targeted to learn or do even better. One success leads to another, helping students to view themselves as being continually successful in learning/ accomplishing the outcomes they desire. In contrast, if students have a low sense of self-efficacy, they may believe they are unable to succeed and as a result show poor performance or even failure, which leads to the expectation of future failure.

Self-efficacy is very important for learning since greater efficacy leads to greater effort, persistence and learning even in the face of set-backs. Self-efficacy also influences motivation and learning through goal-setting. If we have a higher sense of efficacy in a given area, we will set higher goals, learn better, be less afraid of failure and find new strategies when old ones fail. If our sense of efficacy is low, we may avoid a task altogether, or give up learning doing it when problems arise. Self-efficacy must not be considered synonymous with self-esteem or self-concept, since it involves judgments of capabilities specific to a particular task. Self-esteem, on the other hand, is concerned with judgments of self-worth, and self-concept is a more global construct which encompasses self-esteem and self-efficacy.

3.4.8 Learning Styles

Individual show preference for different learning conditions. These are called learning styles, or learning preferences. The learning style theories recognize that individuals learn in different ways and that each individual has a unique style of learning. You must have noticed that some students learn well in the morning while some others prefer to study at night. Some students like to sit in quiet places, while some others like to have music accompanying their learning. Many students report optimal learning while sitting on the dining table and also eating snacks along with their studies. Students who live in joint families actually develop styles of learning which are set in public spaces. Learning styles can thus range from straightforward preference for physical surroundings to more

fundamental differences that may be rooted in culture or personality. Some individuals take a ‘deep-processing approach’, seeking the underlying concepts and meanings of what they are attempting to learn. Others take a surface – processing approach, focusing on memorization rather than analysis and understanding. It is generally observed that individuals who adopt a surface approach are motivated by getting good marks and other external rewards, whereas those who take a deep approach enjoy learning for the sake of learning and are less concerned with external evaluations. There are many more differences in learning styles which educational psychologists have studied. For example, think about how you learn the names of people you meet. Do you learn a name better, if you see it written down? If so, you may be a visual learner, one who learns best by seeing or reading. If you learn better by hearing, you may be an auditory learner. Another pattern of learning styles is field dependence versus field independence. Field dependent individuals tend to see patterns as a whole, and have difficulty separating out specific aspects of a situation or pattern, while field independent persons are more able to see the parts that make up a large pattern. Another important learning style on which individuals differ is ‘impulsivity’ versus ‘reflectivity’. Impulsive individuals tend to work and make decisions quickly, while reflective types are likely to take a longer time considering all alternatives.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

- 2) List down significant psychological factors that influence learning among students.

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- 3) In your opinion, how does intelligence level of children affect learning among them?

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- 4) Read the following cases carefully and then identify their self-concept and learning style. Describe their relationship with learning.

- a) Namita aged 14 is very frightened of mathematics. She goes blank each time she opens her maths book. At school, although she is comfortable with all other subjects, she becomes very nervous in

her maths class and makes mistakes all the time. Most of the children laugh at her. Her maths teacher often intimidates her. Namita practices hard at home and in the presence of her maths tutor, gets all her sums correct. She does each exercise thoroughly and sits in a quiet corner of her home. It is her dream to top one day in mathematics!

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- b) Sameer is a very creative boy. He is bored at school, since the normal classroom teaching does not interest him. He finds the course dull, too bookish and uninspiring. It is his weird to design a car which runs on water. He keeps on trying to find out more and more about automobiles, their designs etc. His parents are worried about him, since his performance is not very good at school. He seldom studies and is always reading books other than his school texts. His teachers do not bother much about him since they consider him weird and somewhat crazy. Yet Sameer is not upset or unhappy; he continues to pursue his passion.
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3.5 SOCIO-CULTURAL (ENVIRONMENTAL) FACTORS INFLUENCING LEARNING

The socio-cultural environment, within which a child grows, has a significant impact on his/her learning. In fact, all learning occurs with special reference to the cultural context of an individual. The social constructivist view of psychology holds that all learning is culturally oriented and guided. For our own understanding, we can sub-divide socio-cultural factors into: a) family, b) neighbourhood and community; and c) socio-cultural diversities like, caste, class, ethnicity, religion, etc.

Family has the first and most fundamental influence in the socialization process of an individual. It is within the family that child learns the behaviour patterns for survival, social skill, attitudes, interpersonal skills, social norms, the do's and don'ts of his/her culture and community, acquires a sense of right and wrong, a value orientation etc. thus, we can say that the family is the site of all learning. In a family, the relationships with the parents play a vital role in the learning process of the students. If the child-parents relationship is based on mutual respect and faith, it can provide the child a congenial atmosphere which in turn can facilitate his/her learning. A distorted and unhealthy environment, on the other hand, adversely affects the learning of the student. The upward mobility brings

resistance on the part of the student to learn. Students in such families find themselves unable to cope up.

The neighbourhood and community in which a child lives also have a potent impact on what he/she learns and acquires. Many attitudes, habits, beliefs, perceptions, stereotypes and social roles and responsibilities are shaped directly or indirectly by child's experiences with the persons in his/her neighbourhood. These persons include his/her peers and age-mates and all the elders around his/her. Through conditioning, social learning, direct instruction and modeling a child learns a number of things from them.

A healthy peer relationship also plays an important role in learning. Student relationship in the classroom, school, society, etc. creates a particular type of emotional climate. A sound peer relationship provides a tension free environment to the student to learn more and to compete in the class. If the relationship among peers is not good, it adversely affects their learning. Therefore, it is recommended that in order to improve classroom learning climate, free discussions should be organized during teaching-learning process. The student should be encouraged to meet each other and their teachers freely. If any misunderstanding is created or developed, it should be immediately clarified so as to maintain the healthy climate and cordial relationship among peers.

In our country, casts, class and religion also play a predominant role in shaping our identity, self-concept, attitudes, value orientation, goals and achievement patterns. For example, the socio-economic status of the group to which we belong can be directly linked with the degree of stimulation or enrichment available to us in our learning environment. It has been seen that an adequately enriching and stimulating environment provides the learner with more learning opportunities, and greater control over the environment than an impoverished or needy environment.

Learning is also seen to vary across religious and ethnic groups, owing to the distinction in their beliefs, values, attitudes and practices. In the Pan Indian culture, we are encouraged to develop a sense of autonomy, independence and control over our own lives. In many orthodox communities, the social learning of girls is fraught with biases and injunctions which are justified in the name of religious beliefs. The kinds of experiences which a learner is exposed to, differ across regions and geographical locations as well.

Hence, it may be concluded that the socio-cultural environment provides us with a learning framework. Learning is a process of constructing meaning of our experiences and in this process of 'meaning making' the socio-cultural dispositions and training we have received are likely to exert their influence.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

5) How does family environment influence learning among children?

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- 6) In your own classroom situations, you might have come across various socio-cultural diversities among your students in the class. How do these diversities influence learning among the students? Discuss with example.

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3.6 SCHOOL RELATED FACTORS INFLUENCING LEARNING

Learning is also assumed to be greatly influenced by the school and the school environment in which students are imparted with different types of learning experiences. The term ‘school environment’ encompasses the terms ‘school culture’ and ‘school climate’ that affect the behaviour of teachers and students. School culture is the shared beliefs and attitudes that characterize the district-wide organization and establish boundaries for its constituent units. School climate characterizes the organization at the school building and classroom level. It refers to the “feel” of a school and can vary from school to school within the same region. While an individual school can develop a climate independently of the larger organization, changes in school culture at the regional or local level can positively or adversely affect school climate at the building level. School culture reflects the shared ideas-assumptions, values, and beliefs-that give an organization its identity and standard for expected behaviours. These ideas are deeply imbedded in the organization and, to a great extent, operate unconsciously. They are so ingrained that they are often taken for granted. Understandings shared by teachers, staff, and students structure their responses to demands made from outside (e.g., by parents and the community), and from inside (e.g., by the top administration and its communication of directions from the higher government authorities). School culture is based on past experience which provides a template for future action based on “how we do things in this organization.” School culture is reflected in an organization’s atmosphere, myths, and moral code. The characteristics of a school culture can be deduced from multiple layers:

- Artifacts and symbols: the way its buildings are decorated and maintained
- Values: the manner in which administrators, principals and staff function and interact
- Assumptions: the beliefs that are taken for granted about human nature.

On the other hand, school climate reflects the physical and psychological aspects of the school that are more susceptible to change and that provide the preconditions necessary for teaching and learning to change and that provide the preconditions necessary for teaching and learning to take place. School climate, focuses on the feelings and attitudes about a school expressed by students, teachers, staff and parents – the way students and staff “feel” about being at school each day. School climate is a significant element in discussions about improving academic

performance and school reform. It is also mentioned in discussions of potential solutions to problems such as bullying, inter-student conflicts, suicide, character education and moral education. Although, there is no consistent agreement in the literature on the components of school climate or their importance most writers emphasize caring as a core element. However, some place safety foremost, defining school climate as “an orderly environment in which the school family feels valued and able to pursue the school’s mission free from concerns about disruptions and safety.” Several aspects of a school’s physical and social environment comprise its climate. The following eight areas comprise school climate:

- Appearance and physical plant
- Faculty relations
- Student interactions
- Leadership/decision making disciplined environment
- Learning environment
- Attitude and culture
- School-community relations

The comprehensive view used in this brief, and summarized below, defines school climate in terms of four aspects of the school environment:

- A physical environment that is welcoming and conducive to learning;
- A social environment that promotes communication and interaction;
- An affective environment that promotes a sense of belonging and self-esteem;
- An academic environment that promotes learning and self-fulfillment.

These various aspects of school climate do not operate independently of one another. For example, the physical environment can encourage or discourage social interaction. Similarly, social interaction facilitates a warm and affective environment. Collectively, the physical, social and affective environments contribute to, and are impacted by, the academic environment.

In addition, a student is helped by the resources available in the school for bringing desirable changes in his/her behaviour. The physical resources include availability of appropriate learning materials, facilities like teaching-learning aids, school building, classrooms, library, laboratory facilities, playground, sports equipments, electricity facility, drinking water facility, proper seating arrangements, and so on. The quality and management of these physical resource decide about the effectiveness of learning among students. Apart from this, school policies, the nature of school administration, distribution of responsibilities and accountability, leadership provided the institutional head, discipline among staff as well as students, etc, are also the deciding factors that influence learning among the students.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

- 7) Enumerate the factors that operate in your own school and have a close impact on learning among students of your school.

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- 8) Differentiate between school culture and school climate.

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3.7 TEACHING-LEARNING PROCESS RELATED FACTORS INFLUENCING LEARNING

3.7.1 Methods of Learning

The methods of learning involve the question of how to study. Correct ways of study always enhance learning. Effective learning promotes good memory of the corresponding material. The quality of learning depends on the abilities of a teacher and a learner to link the present new learning with the past experiences of the learner which helps the learner to assimilate and understand new learning. In the same way, one can expect good results in learning, if learning experiences are given in view of seeking correlation among different subjects or areas and with real life happenings and situations.

Senses also play a dominant role in the learning process. A learner who learns through utilization of maximum senses always has an advantageous edge over others. The revision and practice always brings good results in the achievement of learning. A student who is engaged in sufficient drill work, practice, revision and review of the learning task can be expected to harvest a good yield in terms of retention, reproduction and utilization at the proper time. In addition, learning also depends on the nature and quality of the reinforcement provided to the learner in the learning task. Knowledge of the results and progress also work for providing immediate reinforcement to the learners. The results of learning are also influenced, to a great extent, by the methods and techniques employed by the teacher for teaching of a particular content or the subject matter. The learner-centered teaching methods that allow useful teacher-pupil interaction have proved to be more helpful in enhancing learning among the students as compared to the teacher dominated methods and techniques.

3.7.2 Influence of Media on Learning

These days, children are born, grow up and live in a media dominated world. Media have been considered as an important component of transmitting information. All media are basically delivery media because they deliver i.e. communicate information from the sender-end to the receiver-end. The learner is a receiver and consumer of the information conveyed through the media. Media can be broadly divided into two categories: print and non-print media. Print media refers to text or printed materials. It is economical and has traditionally been used for pedagogical resources. But, it may not be the only or the perfect medium to impart education. Non-print media, also known as modern electronic media have certain unique qualities which, in certain cases facilitate learning much faster than the print medium. These help meet diverse learning objectives more efficiently than the printed matter. Certain non-print media formats and delivery systems contribute well to students' learning activities. These excite the students psychologically and motivate them to participate in teaching-learning process. So, it is well clear that media are advantageous in enhancing learning among students, but proper use of the media requires the use of well-developed media-specific skills. If these skills are not well developed, the message may be misinterpreted or uncritically received, accepted and responded to. For using media constructively, learners need to learn how to critically interpret combinations of words, pictures, maps, diagrams and specialized symbolic expressions. Critical learners can use different media for attaining various educational objectives, chief of which are the following:

- As a means of entertainment or infotainment i.e. information-cum-entertainment;
- As a means of enriching classroom learning;
- As a major learning resource;
- As a means of developing and refining creative expression;
- As a means of further development of media-specific sensory skills and higher order cognitive skills.

A constructive use of various media can enable the learners to transform their understanding of their society and themselves, and thus help formal education become more meaningful for every learner. If the end-purpose of education is to prepare the individual for creative and decisive response to life's uncertainties, the proper use of mass media can indeed prove to be real asset. Media can provide a glimpse of alternative possibilities and help learners to reconstruct a new map of knowledge, with greater focus on powers of synthesis and intellectual analysis.

3.8 LET US SUM UP

In this unit, we have discussed the major factors affecting learning. Any discussion on learning always strives to identify the factors which affect it, irrespective of whether these are psychological, socio-cultural, school-related or factors related to teaching-learning process. Among the significant psychological factors affecting learning are intelligence, motivation, self-concept, attitude, interests, learning styles, emotions, etc. In the similar manner, socio-cultural factors that affect learning include family, home environment, neighbourhood, community, peer-group, etc. Likewise, school environment, school policies, physical infrastructure, co-curricular activities, teaching methodology employed, methods

of learning, media employed for learning, etc. are some of the major school-related factors that have a strong bearing on learning among students. These different factors interact in various ways and combinations to mediate the learning process. It is very difficult to extricate any one of these factors from each other. You must have understood how each of these factors are conceptualized and understood, their proneness to individual variations and their relationship with learning.

3.9 UNIT END ACTIVITIES

- 1) Interview any two students studying in your school regarding their performance and achievements in school. Identify the factors which have influenced their performance along with the depth and direction of influence.
- 2) Analyze the report cards of 10 students. Based on the marks/grades and comments given, try to arrive at the possible factors which have influenced the learning among them.

3.10 POINTS FOR DISCUSSION

- 1) In any learning task or activity, performance is contingent on both personal and environmental factors. Discuss.
- 2) Discuss the role of readiness and maturation in influencing learning among the students.
- 3) To best understand a learner, we need to consider his/her perspective and point of view and the sum total of the world in which he/she lives. Critically analyze the statement.
- 4) Irrespective of whether we go to school or not, we all learn. In such a case when we don't go to a formal school, which factors are likely to shape our learning?
- 5) Explain the role of school climate in affecting learning among students.
- 6) The methods and media employed during teaching-learning process have a strong impact on learning among students. Do you agree to this statement? Support your answer with suitable examples derived from your own class situations.

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3.12 ANSWERS TO CHECK YOUR PROGRESS

- 1) Refer to Section 3.3.1, 3.3.2, 3.3.3, and 3.3.4.
- 2) Intelligence, motivation, maturation/readiness to learn, emotions, self-concept, learning styles, attitude etc.
- 3) Refer to Section 3.4.1.

- 4) a) Answer the question by referring to Section 3.4.7 and on the basis of your own understanding and experiences as a school teacher.
b) Answer this question by referring to Section 3.4.8 and on the basis of your own understanding and experiences as a school teacher.
- 5) Refer to Section 3.5 and on the basis of your own experiences as a community member as well as a school teacher.
- 6) Answer this question on the basis of your own experience as a class teacher.
- 7) School environment, co-curricular activities, infrastructure facilities, library, laboratories, teachers' strength, teaching methods employed by teachers etc. Apart from this, answer to this question should be based on your own observations of the school in which you are working as a teacher.
- 8) Refer to Section 3.6.

UNIT 4 LEARNING ENVIRONMENT

Structure

- 4.1 Introduction
- 4.2 Objectives
- 4.3 Meaning of Learning Environment
 - 4.3.1 Types of Learning Environment
 - 4.3.2 Importance of Creating a Positive Learning Environment
- 4.4 Components of School Environment that Influence Learning
- 4.5 Creating a Conducive Learning Environment in a Classroom
 - 4.5.1 Ensuring Good Physical Environment
 - 4.5.2 Ensuring Good Psychological Learning Environment
- 4.6 Maintaining a Learning Environment
- 4.7 Let Us Sum Up
- 4.8 Unit End Activity
- 4.9 Points for Discussion
- 4.10 Suggested Readings and References
- 4.11 Answers to Check Your Progress

4.1 INTRODUCTION

In the previous units of this block, you have learnt about the various perspectives of teaching-learning process which have emerged from the different theories of learning. You have also learnt about psychological, socio-cultural and school related factors which affect the teaching-learning process.

Now, having understood how learning takes place, you may be curious to know how to obtain maximum output in student learning. One way to achieve this objective is through creating good learning environment in the classroom. You know that learning is not just limited to the classroom but it takes place even in the informal settings i.e. in school, community and among peers. In this unit, we discuss the concept of learning environment and also about its various components. As a teacher, it is essential to understand the ways through which you can create a conducive learning environment in your class.

4.2 OBJECTIVES

After going through this unit, you should be able to:

- explain the meaning of ‘Learning Environment’;
- differentiate between formal learning and informal learning environment;
- analyze different components of learning environment; and
- discuss the ways to maintain and sustain conducive learning environment in classrooms.

4.3 MEANING OF LEARNING ENVIRONMENT

All of us know that learning is an ongoing process, which is often associated with school. But it is also a result of the interaction between individuals and environment in which those operate. Hence, it is a dynamic process, which takes place throughout life. Environment in which learning takes place may be described *as a composite of natural conditions, circumstances and influences, and socio-cultural contexts in which an individual is situated*. Therefore, you can say that learning environment is the sum total of the surroundings in which individuals interact to enrich experiences and thus leading to learning.

Let us now go through the meaning of ‘Learning Environment’ from the point of view of the various learning theories and also from the various settings of learning.

If you analyse the various learning theories, you will find that social environment plays a significant role in learning. Bandura, a social psychologist, in his Social Learning Theory proposed that new behaviour can be learned through the process of observation and imitation. Therefore, it can be said that learning takes place as a result of interactions among personal characteristics, behaviour and environmental factors. Besides social environment, physical environment also influences learning.

The role of culture is also considered as a significant factor of learning. Vygotsky, a constructivist thinker, believed that the mastery over the culturally important tasks can take place only through social interactions. For him, socio-cultural environment plays a significant role in the process of learning as the learner uses cultural tools (like language) to mediate the meaning making process. It is understood that learning outcome is contextual in nature, variations in learning environment lead to different learning outcomes.

Learning is a continuous process and is not limited to any particular setting. Based on the different types of settings, UNESCO (1984) classified following types of learning:

- Formal Learning - institutionalized
- Non-formal Learning - organised with flexibility
- Informal Learning – incidental and individualised not organised

The terms **formal, non-formal and informal** are often used to describe the learning environments. You know that the formal learning mainly takes place in school, where as informal learning takes place in family and community. Let us understand more about the concepts of formal, informal and non-formal learning environments.

4.3.1 Types of Learning Environment

a) Formal Learning Environment

Learning environment that occurs in formal organized institutions like schools, colleges, and universities is known as formal learning environment. Formal learning institutions are highly structured in terms of learning objectives, learning time or learning support, aim at certification which leads to recognized qualification. The intention of learning process is very high from the perspective of the learner. The primary objective of formal education is to transmit the knowledge, skills, attitudes, beliefs, etc. preserved and

propagated by a society. This is evident from your experience as a teacher that you have to teach what is there a curriculum prescribed by the State.

As a formal learning organization, school plays a major role in formation of ideas, habits and attitudes of a child with the aim of development of well balanced personalities. In general, it aims at development of children, who are physically strong, mentally alert, emotionally stable, culturally sound and socially efficient.

You know that there are many stakeholders in a school system which include learners, parents, teachers, community and school administration. Out of them teachers and students are two major stakeholders in a school system. The functioning of school as a formal learning organization is characterized by the continuous interactions between students and teachers. There are many contexts in a school system which influence student learning.

b) Informal Learning Environment

Learning environment which occurs in everyday life (at working place, in families, during recreational time, during school breaks...) is called informal learning environment. Informal learning is not structured and does not aim at certification. In some cases, informal learning can occur with purposes, usually it is unintentional.

There are many places that constitute informal environments of learning. Home is the first informal place of learning for a child. All of us know that a child learns a lot of life skills, attitudes, social manners and knowledge of his/her immediate world through his/ her interaction with family members like mother, father, brothers, sisters and others. Informal learning enables children to change their behaviour from being self-centred to being socially aware, caring for the needs and rights of other family members. Gradually, the child is introduced to the social processes of the neighborhood community of which the family is a part.

Thus, the family, the neighborhood community, the peer groups, the market places, etc form the informal learning environment that has profound impact on the socio-cultural and cognitive development of the child.

There are number of factors which help in creating an appropriate learning environment at home, some of them are as follows:

- The number of books and other learning materials at home.
- The amount of reward and recognition the children receive from parents for academic achievement.
- The parent's expectation regarding their children's academic achievement.

An interactive home environment where family members are able to provide facilitative learning environment for the child helps the child to grow cognitively and socially. Apart from home, community also plays an important role in providing informal learning environment to the child.

c) Non-formal Learning Environment

Non-formal learning environment, unlike formal learning, takes place outside the formal educational structure. Non-formal learning intends to achieve pre-determined educational objectives. But, unlike formal learning, non-

formal learning always caters to the learning need of a specific target group. In a country, one can find a number of initiatives and programmes, which are non-formal by nature. In India, adult education programmes, basic education programmes, literacy programmes, health awareness programme, programmes meant for school drop outs, agricultural extension programmes and the like constitute non-formal learning programmes. Non-formal learning programmes are always conceptualized to achieve short-term and special educational goals and objectives. For example, in any kind of literacy programme, the objective is only to achieve literacy among the illiterates and the programme is geared towards the achievement of that objective only (IGNOU,2005).

Curricular experiences in non-formal learning programmes are generally formulated keeping in mind the specific needs of the target group. These are more individualized rather than broad-based and general in nature. For example, programmes meant for village level health workers contain specific information pertaining to health care in the context of village environment. The teaching-learning process is generally learner-oriented and flexible in nature. Transaction of learning experiences is centred around community resources. Activities in non-formal learning programmes are mostly organized keeping in mind the convenience of the organizers as well as the learners. Like formal education, measures are also taken to carry out both formative and summative assessment by mid-term review and final review (IGNOU, 2005).

4.3.1 Importance of Creating a Positive Learning Environment

There is growing evidence that a positive learning environment increases student achievement. It also contributes to learning and helps in building strong relationships between teachers and learners. A positive learning environment also provides a feeling of safety to students, staff, and visitors.

A good learning environment helps in building a culture of mutual trust and respect that engages the learners meaningfully in the task of learning. Besides that, it also supports a relationship between teaching and learning that helps in improving childhood mental health and academic performance. If you could create a learning environment, which is culturally and linguistically diverse, it results in stronger connections between each student and teacher. Therefore, a positive learning environment does not only help a learner to perform better cognitively, but also ensures a balanced development of his/her personality.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

1) What do you mean by learning environment?

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2) Discuss the importance for creating learning environment?

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4.4 COMPONENTS OF SCHOOL ENVIRONMENT THAT INFLUENCE LEARNING

Formal learning, as you know, involves interactions between teachers and learners in formal learning settings. Schools provide both students and teachers with social and academic platforms to interact among themselves. School environment comprises the school surroundings with which a learner interacts on a regular basis. Be it studying, playing, quarrelling or simply gossiping, the learner has someone around. Every interaction and interpersonal relationship of a learner occurs in this social environment of the school. Many social skills, habits, attitudes and prejudices of individual students are tried out, tested and refined in the social environment of the school. Thus, if we have to understand the nature of the influence of school environment on a learner, we have to understand what constitutes the surroundings of a learner. Some constituents of school environment are discussed as follows:

i) Physical Environment

Learners are constantly interacting with the physical environment of their schools during scheduled or unscheduled time, consciously or unconsciously. Physical environment of a school includes its physical surroundings and other facilities available in the school for learners. There is strong, consistent evidence for the effect of basic physical variables (air quality, temperature, noise) on learning. Talton and Simpson (1987) comment that ‘The classroom is the basic structural unit of our educational system’, the nature of the classroom is clearly affected by the school design and objectives adopted at the school level. Not enough attention is paid to the importance of physical environment for learning. The absence of the minimum essential standard for a school drastically affects the teacher’s productive output and classroom management. Yet, you will commonly find that the physical surroundings and facilities differ from school to school. This difference has an impact on the meaningful engagement of teachers and learners in the process of learning and thus leading to even low achievement.

Mostly the comfortable physical environment is just limited to meeting out the requirement of having good furniture. But, other components must be included while designing good classrooms which include:

- Different room arrangements serve different purposes, it is necessary for classrooms to have some degree of flexibility. For example, physical arrangements (arrangement of chairs, tables, benches, etc.) in classrooms must be different from science laboratory, educational technology laboratory, sports room, workshops, etc.

- ‘Ownership’ of space and equipment by both teachers and students is important. Ownership and engagement are important elements, so there has to be a balance (in display of student work, for example), between permanent and fresh elements.

ii) Psychological Environment

If building, space and facilities provide physical environment to a school, its philosophy and practices provide a psychological environment to it. The psychological environment of a school would refer to the *stimuli that influence upon the learner’s psyche in the school*. For example, the attitude of the teacher towards a learner would act as a stimulus for the learner to do or not to do certain things in the school.

How does the psychological environment influence a learner? Researches indicate that the psychological environment of a school has the most powerful effect on the learner and on the process of learning. The expectations of conduct, the nature of reward and punishment mechanisms and learning engagements, etc. have an influence on the learner as well as on the process of learning.

For example, imagine a situation in a school where a learner is kept in a *threatening situation*. This situation will result in the development of *anxiety in the learner*. Anxiety may lead to undesirable behaviors such as escaping from tests, blaming the teachers for faulty questions, engaging in malpractice, and so on. Thus, the psychological environment created in the school will have an impact on learners.

Let us now take another example, suppose in your class a student makes a remark which you find offensive (like “Fats children are stupid”). This could primarily be your problem as it disturbs you, whereas the student may not take the remark seriously. But if, the same student complains repeatedly, then his/her classmates will refuse to let him/her into group projects. At that point everyone shares in some aspect of “the” problem: the criticizing student is prevented from doing his/her group work, and many classmates and the teacher are also offended.

iii) Social Environment

Every school provides its students with a social environment in addition to the physical and the psychological environments. As you know, a learner is surrounded by other learners as well as the teachers. All of them are engaged in social interactions, which lead to the development of interpersonal relations and ultimately influences a learner and his/her learning. Through constant interactions with the peer group, a learner learns and practices the social virtues of cooperation, self-sacrifice and loyalty. The outdoor activities offer learners opportunities for developing qualities like courage, resourcefulness, self-reliance and initiative among students. Good personal relationships develop stability, trust, sense of belongingness, self-respect and self-acceptance among learners and creates a positive environment for learning. This positive environment establishes the context for healthier levels of thinking, feeling, and behaving. Such contexts help learners to feel safe to share ideas, to actively participate in the learning process, and to create a learning community. When learners perceive that individual differences in

their abilities, backgrounds, cultures, and experiences are valued, respected, and accommodated in learning tasks and contexts, their levels of motivation and achievement are enhanced.

After understanding the various components of learning environment, now it is essential for you to know how to create learning environment.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

3) How does psychological environment influence the learner?

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4.5 CREATING A CONDUCTIVE LEARNING ENVIRONMENT IN A CLASSROOM

Earlier we have mentioned that for learning to be effective in schools, it is necessary that a conducive environment for learning is developed. It allows learners to interact with the teacher and among themselves during the teaching-learning process. If a classroom is not properly organized to support the type of schedule and activities a teacher has planned, it can impede smooth transaction of leaning experiences as well as limit what and how students learn. However, a well-arranged classroom environment is one way to more effectively manage instruction, because it checks students' behavioral problems and establishes a climate conducive to learning.

Creating and maintaining a stimulating learning environments can be achieved through effective classroom organization. Such exercise promotes interactive climate leading to innovation. As a teacher, you are expected to fulfill at least two cognitive demands of the learners: academic task demands (understanding and working with content) and social task demands (interacting with others concerning that content). This implies development of such an environment, where learners can constantly understand the content and find appropriate ways to participate in various kinds of group activities. Therefore, your role is important in facilitating the learning of these academic and social tasks.

But, you must understand what is needed to achieve this goal? It involves creating and maintaining a learning environment within the classroom, which requires careful planning right at the start of the academic session in a school. The learning environment must be envisioned both in terms of organizing a physical environment and cognitive activities for the learners. In this section, we discuss both the aspects of the learning environment from the point of view of its nature and organization.

4.5.1 Ensuring Good Physical Environment

As a teacher, you expect that your learners must come ready to learn, but often, we forget to look around and see whether the space (classroom) where they come for learning are conducive to learning? So, how would you analyse whether the physical space in your classroom promotes learning? You must keep in mind the following questions to judge the appropriateness of learning environment:

- Is the space inside the classroom warm and inviting?
- Does the room arrangement match with the teacher's philosophy of learning?
- Do the students have access to necessary materials?
- Are the distracting features of a room eliminated?
- Are all areas of the classroom accessible to all children?

Apart from the above, there are other aspects of the classroom which have an impact on the classroom environment. This includes furniture, color of the wall, temperature, light etc. let us now examine them in detail.

The physical environment of a classroom plays an important role in the development of ownership feeling of the school among students and more specifically their class. The classroom environment should foster cooperation and acceptance among learners.

The classroom should be lit with natural light and have at least a few windows that open. Although today, you may also find many climate controlled school buildings, but still the preference is for natural light and windows. The temperature should be kept comfortable for the learners and teacher as well.

Another important aspect of the classroom is the furniture to be used by learners. You can have them in various sizes and shapes to increase comfort and promote group work. Learners in the elementary classrooms are very curious and energetic; therefore it is essential that there must be a proper arrangement of the classroom in order to control foot traffic patterns and set-up work areas.

Generally, best practice data show that learners respond best to clean surfaces, and streamlined visual stimuli. It implies that the wall colors must be kept soft and you must display items prepared by your learners in a clear, logical, and neat way. You can use part of your classroom wall space to celebrate student success.

4.5.2 Ensuring Good Psychological Learning Environment

After having ensured the physical environment in the classroom, the next important task for a teacher is to consider the cognitive space necessary for a learning environment. This cognitive space depends upon the expectations teachers set for learners in the classroom and the process of creating a motivational climate. Effective teachers create and implement classroom management practices that cultivate an engaging classroom environment for their students. It is expected that you must include setting expectations (i.e., rules and procedures) and creating a motivational climate while you plan for your teaching. Let us now understand how you can do it.

a) Setting Expectations

Elementary classroom is the basis for the future learning of the learners. Therefore, it is important that the teacher establishes the behavioural expectations of students for student behavior, which are expressed through rules and procedures. Rules indicate the behavioural expectations of students in the classroom, and how one interacts with one's peers and the teacher. For example, it is a rule to come on time to the classroom. A procedure explains how things have to be done. For example, for effective teaching in your class, you follow the steps: explain, rehearse and then reinforce.

How can we make sure that the rules in our classroom promote rather than hinder learning? The key issue is that real group norms are inherently social products, and in order for a norm to be long-lasting and constructive, it needs to be explicitly discussed and accepted as right and proper.

Therefore, if learners are involved in framing the rules, it increases the likelihood of its compliance in the classroom. Learners can formulate potential norms with proper justification to support them and after having them discussed by the whole group, and finally agreeing on a mutually accepted set of class rules, along with the consequences for violating them. These class rules can then be displayed on a wall chart. For example, you can involve students in setting a code of discipline for your class; this will ensure that the students know about the conduct rules and also the consequences of not following them.

It is essential that both rules and procedures must be taught, practiced, and enforced consistently. Along with the development of the rules and procedures, the learner's responsibility for the academic work must also be communicated.

Learner's involvement in developing a sense of classroom ownership must be developed. They can also be involved in setting up the classroom environment by asking what they want to put on the walls, how they want to arrange their tables and chairs, etc. These interactions result in promoting positive student interaction and a sense of ownership over their environment, which has a positive effect on their learning.

Apart from the above, the expectations in terms of learning must also be specified to the learners. This helps them to organize their learning and in becoming active learning partners in the process of learning.

b) Motivational Climate

An essential part of organizing the classroom involves developing a climate where in teachers encourage learners to do their best and also get excited about what they are learning. There are two factors that are critical in creating such a motivational climate: value and effort. To be motivated, students must see the worth of the work that they are doing and the work others do. A teacher must demonstrate *value* of the task to be performed in the class. This can be done by telling them the value of the task in daily life.

Effort involves time, energy, and creativity a student uses to develop the "work". One way that teachers encourage effort is through specific praise,

telling students specifically what they are doing is worthwhile or not. An understanding of the value of academic tasks and the effort necessary to complete these tasks motivate students to learn.

It is possible to create a setting that appears to be well managed, in terms of arrangement of room application of rules and procedures, but there may be very less actual learning. However, when a teacher creates structure and order, as well as a good learning environment in which students enjoy learning and success, then the classroom can truly be said to be well managed. In the beginning of the year, teacher must set expectations and create a motivational climate for learning. He/she should combine them with appropriate physical space in order to create and implement a successful classroom management system.

Mere creation of the motivational climate is not enough; you must do continuous effort to maintain the same. Hence, you can use following ways to do so:

- making learning stimulating and enjoyable;
- presenting tasks in a motivating way;
- setting specific teaching-learning goals;.
- protecting the learners' self-esteem and increasing their self-confidence;
- creating learner autonomy;
- promoting self-motivating teaching-learning strategies.

Teachers can foster a joyful climate in the class by ensuring that they encourage a student's questions or remarks. It takes only one or two instances of "That's a stupid comment. Haven't you prepared for class?" to discourage participation. Instead, a teacher should say 'you can try more'. This motivates a student to come up with a better answer.

Humor can help you and your learners develop a good relationship and a positive classroom atmosphere (Goodwin & Judd, 2005; Franklin, 2006). Your effective use of humor can help you put students at ease, gain their attention, and help them see you as a person. When using humor, make sure that it is not directed toward students as ridicule or sarcasm; is not misinterpreted; and is free of racial, ethnic, religious, sexual, and gender bias and connotations (Abrams, 2005).

You can increase the motivational climate in your class in the following ways:

- Fostering classroom atmosphere which is based on trust, cooperation, empathy and risk taking.
- Model positive attitudes, respectful behaviour, helpful conversation and constructive actions.
- Do not permit ridicule, sarcasm, or superiority to exhibit in classroom.
- Give students opportunities to share their experiences and learning with each other.
- Help others to view your students positively and treat them well.

- Use a variety of instructional strategies and activities to maintain student interest and motivation.
- Teach problem-solving, conflict resolution and/or social skills.
- Show students how to build on their strengths and compensate for weaknesses.
- Model and teach students to accept and learn from mistakes.
- Emphasize improvement rather than perfection.

c) **Understanding Individual Differences**

For creating positive environment in the classroom, it is essential that you become responsive to the individual needs of learners. An effective teacher has to be sensitive to the individual differences in terms of their preferred learning styles by varying the rate, amount, nature or content of the instruction. Teachers who modify their instruction to accommodate individual differences send the message that they want to reach all of their learners whenever they need them. This also ensures active participation of learners in learning activities.

Teachers should use a variety of instructional techniques to include different socio-cultural characteristics of learners like language, socio-economic conditions, cultural background that influence their learning. They should use instructional strategies and techniques to suit to the learning needs of children with physical, sensory or learning disability. They should select instructional methods like peer tutoring, cooperative learning, etc. to cater to different learning styles.

4.6 MAINTAINING A LEARNING ENVIRONMENT

A teacher is required to actively monitor their learners for maintaining a learning environment. Active monitoring includes watching student behavior closely, correcting inappropriate behaviors before they escalate, dealing with misbehavior consistently, and attending to student learning. Maintaining effective learning environment involves helping students when they are stuck, when they need support, when they need direction, when they need correction, and when they need encouragement.

When students behave inappropriately, you must handle it promptly to keep it from continuing and influencing other students. Though you can handle most misbehavior by using techniques such as eye contact, serious misbehavior requires direct intervention.

In a situation, when learners have misunderstandings about academic content, you must look for ways to re-teach content and to improve the clarity of communication. The clarity in teaching can be brought when you describe the learning objectives clearly, give precise instructions for assignments, and respond to questions with understandable explanations. Thus, classroom communication including clarity of instructions and understanding of learner's needs is important in maintaining a good learning environment.

A good learning environment also ensures understanding value of others contributions and value of diversity within the classroom. The uniqueness of

each classroom and the variety and complexity of tasks that teachers face make it impossible to prescribe specific techniques for every situation.

Check Your Progress

Notes: a) Write your answers in the space provided after each item.

b) Compare your answers with those given at the end of the Unit.

- 4) Suggest the ways through which you can create a motivational climate in the classroom.

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- 5) How does understanding of the individual differences help in the process of learning?

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4.7 LET US SUM UP

In this unit, you have learnt about this broad concept of learning environment as the surrounding which helps the individual to interact in a way that it results in meaningful learning. In the unit, we have also discussed about its various components, which includes physical, psychological and social environments. Creating and maintaining, stimulating learning environments can be achieved through effective classroom organization which is interactive and has a climate of innovation. As a teacher, you are expected to fulfill at least two cognitive demands of the learners: academic task demands (understanding and working with content) and social task demands (interacting with others concerning that content). Therefore, while planning for a good classroom environment, it is essential that you understand the ways through which it can be achieved. It is not enough to create a good learning environment, it is equally essential to maintain which can be done through constant redirection, essential correction, and constant encouragement.

4.8 UNIT END ACTIVITY

- 1) Visit any two schools in your area, and prepare a detailed report comparing various components of learning environment in those schools.

4.9 POINTS FOR DISCUSSION

- 1) Does learning environment impact student learning?
- 2) Suggest the ways how you can create a learning environment in a class.

4.10 SUGGESTED READINGS AND REFERENCES

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4.11 ANSWERS TO CHECK YOUR PROGRESS

- 1) Learning environment refers to the sum total of the surroundings in which individual interact in such a way that meaningful learning is resulted.
- 2) A good learning environment helps in the following ways:
 - Increases learner's achievement
 - Increases mutual trust
 - Leads to sustained motivation
- 3) The psychological environment of a school affects both the learner and on the process of learning. It increases better conduct and learning engagements.
- 4) You can increase the motivational climate in your class in the following ways:

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- Fostering classroom atmosphere which is based on trust, cooperation, empathy and risk taking.
 - Model positive attitudes, respectful behaviour, helpful conversation and constructive actions.
 - Do not permit ridicule, sarcasm, or superiority to exhibit in classroom.
 - Give students opportunities to share their experiences and learning with each other.
- 5) If a teacher understands the individual differences, then this helps in sending the message to the learners that they are needed. This in turns helps in increasing their confidence and active participation the process of learning.

ADDITIONAL READINGS

Essential Readings

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